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WARREN ISHAM, EDITOR.

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EDITORIAL CORRESPONDENCE.

NOTES FROM ENGLAND.

NUMBER IV.

THE GREAT EXHIBITION.

BIRD'S-EYE VIEW OF IT.

Of the extent and magnificence of the exhibition as a whole, it is difficult to convey an adequate idea upon paper. Bewildered and sweeping generalities to the neglect of patient detail, however they may excite wonder, and get curiosity on tip-toe, contribute little to the stock of practical, useful information.

With a view then of making as definite and as truthful an impression as possible, of the extent and grandeur of the exhibition as a whole, I will here enter into a series of what may be called sweeping particularities.

Consider then, the vast extent of ground occupied by the crystal palace—that it is nine rods more than a third of a mile long, by twenty-eight rods—and that the space actually occupied by the articles exhibited, including the ground floor and the galleries, is twenty-one acres—that there is a whole acre of machinery in motion by steam power, including cotton, woolen and linen, exhibiting the manufacturing process in every stage of the operation, from the raw material to the finished fabric, as it issues from the loom, together with a great variety of other machinery, among which is a stone cutting machine, a planing machine, and printing press, and a centrifugal pump, from which water pours in torrents, as from a young cataract; that there is another acre of agricultural implements in the British department alone—another acre of the most splendid carriages ever produced by human workmanship, of every conceivable variety, from the lightest to the heaviest, and exhibiting all sorts of peculiarities and tastes, which prevail among the different nations of the earth—nearly another acre, (if they were all together,) of ornamental polished stones, embracing every variety of marble in all their beautiful diversities, as found in different parts of Europe, particularly in Italy, and different varieties of granite, porphyry, &c. &c., together with magnificent specimens of cement, in the form of columns, mantle-pieces, &c., which you could not distinguish from the finest marble, such is the perfection to which they have arrived in making artificial stone by chemical process—well nigh another acre of ores, developing the vast mineral resources of the dif-

ferent countries of the earth, such as gold, silver, platinum, tin, copper, lead, iron, &c. &c., together with specimens of pure metal from each—at least another acre or two of new or recent inventions, embracing a wide range of labor-saving or money-saving machinery, noble monuments to the inventive power of the human mind, particularly as developed under the genial influences of free government—another acre of musical instruments from the most diminutive, up to the ponderous organ of thirty tons, some of them constantly giving forth their delightful strains upon the almost “desert air,” in different parts of the building—four or five acres of the products of the loom, embracing every variety of plain cottons, cotton prints, worsteds, broadcloths, silks, tinsels, &c., rich and beautiful, many of them beyond description—an acre or two, (in addition to the ores,) of the raw produce of different countries—a full acre more, (if they were all in one apartment, and suitable distance apart,) of statuary, the products of the chisel, from the great masters of the art, in all countries, (conspicuous among whom are Raphael and Michael Angelo,) embracing all the forms in which the tender and gentle affections can develop themselves in social and domestic life, all the attitudes of terror, of gloom and despair, of indignation, scorn, and defiance, of resignation, of devotion and high moral courage, of low cunning, and brute recklessness, into which the human features can be wrought, not a few of them being equestrian, and many of them colossal in dimensions—another acre of household furniture, the most expensive, rich and highly wrought, which it is possible to conceive, carved and inlaid work from the courts of Austria, Prussia and Russia, which were paid for by the sweat and toil of their down-trodden millions, hateful trophies of tyrannical oppression, sad mementoes of the degeneration of their subjects. At first I gazed upon them with a bewildering stare, with wonder and admiration, but now with ineffable contempt.

Add to these the almost countless other things, which might be grouped in smaller classifications, but scarcely less interesting, and you have the entire filling up of the grand outline.

And to heighten your conception of the extent and grandeur of the scene, consider that the number of contributors is not far from twenty thousand, that each one contributes from one to one hundred, that more than forty independent nations, the most powerful nations on the globe, and between thirty and forty dependencies, mostly of the British crown, located in al-

most every latitude and longitude of the earth, have come up to this mighty gathering, animated, many of them, with the hope and expectation that what they have brought along, will eclipse and humble all the rest of the world.

Stand with me now at the east end of the building, in the great central avenue, (72 feet wide,) running the whole length of the structure, and which is crowded with human beings, moving hither and thither, as far as you can see, while in the galleries which stretch themselves along upon the right and left, you observe the same promiscuous multitude going to and fro, as this or that object happens to attract their attention; on either side of you below, are five parallel avenues, (ten in all,) running the whole length of the building, and into these, or some of them, you get a glimpse of the moving masses; while around you, near by, you can trace upon the the countenances which present themselves to your vision, the hidden workings of the inner man. You observe the vacant countenance and bewildering stare of those who have now, for the first time, opened their eyes upon the wonderful scene and perhaps audible expressions of admiration fall upon your ear. You observe others who have manifestly been here before, and who breathe easier, but who seem to have no end in view, beyond that of gazing listlessly about upon the mere surface of things. But here and there is one to be seen with calm and collected look, and thoughtful brow, deliberately examining an object, with pencil and note-book in hand, and with as little distraction, as if it were the only one in the building, and to him, for the time being, it is the only one. And it may be that persons of a great variety of feature and complexion, will pass along, while a confusion of languages will greet your ear as they pass.

Now let us move along this broad central highway of the nations—do you see that group crowding and jostling each other to get a glimpse at something? It is a view of the falls of Niagara, tame and insipid enough to one who has seen the reality, but to these people who have not seen it, a wonderful thing. And now we pass statue after statue, the size of life, and colossal, and many of them equestrian, representing men, horses and wild beasts, some of them with dimensions awfully gigantic, and others of them in positions of peril and of horror, the most frightful that can possibly be imagined. Again, do you see a group gathering around some object, each one struggling to get sight of it? It is nothing but some jewels that belonged to some now dead Queen, (of Spain, I believe,) diamonds glittering in coronets, now belonging to the French—that is all. And lo, yonder, further along, is a still greater press—what are they after? Nothing, only to feast their eyes and their little dwarfed souls upon the sight of something which they call a diamond of an East Indian Prince, valued at two millions of pounds sterling, about as big as half a hen's egg, and having the appearance of a piece of white transparent glass, enclosed in a great iron cage—not worth a penny, intrinsically.

I had intended to have taken you into the four furnished royal apartments of the greatest tyrant in Eu-

rope, Joseph, of Austria, and also into the Russian apartments, as we came along, where is to be seen the most costly, and but for the associations connected with them, the most beautiful specimens of furniture, perhaps, the world ever saw, the latter consisting of malachite, a species of copper ore from the mines of Siberia, presenting a surface of polished green, with every variety of shade and figure, which it is possible to conceive, by inlaying thousands upon thousands of pieces, selected and arranged with a view to the greatest possible effect—veneered as I suppose, though I do not know. Large specimens of the ore were exhibited.

But we are at the transept, right in the middle of the building, having passed, also, some magnificent fountains to which I intended to have called your attention.

The transept crosses the main building, right in its centre, and is 72 feet wide, and 108 feet high, its roof running at right angles with that of the main building, and being exactly a half circle, the radius of which is thirty-five feet, enclosing two large trees, whose tops reach it.—And now do you see that beautiful glass fountain rearing itself to a height of 30 or 40 feet, and discharging its crystal waters in great profusion, containing four tons of transparent glass—and those palm trees six inches through, from Madagascar, and other countries; and in the opposite gallery, that monstrous crystal glass chandelier, as tall, and far more branching and brilliant than even the fountain itself? But I must leave you.

Respectfully yours,

WARREN ISHAM.

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NUMBER V.

The Great Exhibition—continued

LONDON, June 7th, 1851.

Truly, London is a great city, aside from the swarming myriads which this mighty gathering of the Nations has brought together. With its two millions and a quarter of souls, its more than thirty thousand streets and business alleys, its five or six miles of shipping, its two or three thousand arrivals and departures of vessels daily, all the year round—its numerous parks, containing sixty, three hundred, four hundred, and four hundred and fifty acres each, and another in course of formation containing fifteen hundred acres—its still more numerous public gardens, containing from twenty to three hundred acres each—its ten miles in length, five in breadth and thirty in circuit, containing an area of fifty square miles, and its twelve miles of the Thames, from its entrance to its exit from the city—with such a general outline, can London be otherwise than the greatest city in the world? Pekin may perhaps excel it in population, but in nothing else.

But when to its population is added the mingled multitude that comes thronging in from almost every section of the globe, embracing every shade of complexion and every variety of feature peculiar to the great divisions of the race,

what a hive is London! Never before, since the world rolled from the forming hand of its Creator, has there been such a spectacle presented anywhere upon its broad surface. Here they come, from the North and from the South, from the East and from the West, not only from every nook and corner of Europe, but from North and South America, from North and South Africa, from Western, Eastern, and Southern Asia, from the West and East India Islands, &c. &c., embracing between forty and fifty of the leading nations of the earth, and their far more numerous dependencies, located, many of them, upon opposite sides of the globe—here they come, not in glittering steel, to butcher and destroy each other—not to desolate countries and fill them with wailing, for the aggrandizement of some thirsty wretch—but bearing the ensigns of peace and good will, fraternizing with each other, as co-ordinate branches of the great family of man, and seeking no higher distinction than is to be found in the peaceful triumphs of industry.

Surely, this mighty movement of the nations will form a great epoch in the world's history, opening the door and preparing the way, as it does, for an entire new order of things throughout the earth—not only from its harmonizing, socializing effect upon the discordant, jealous and hostile tribes of earth, but from its tendency to promote the universal reign of the great principles of civil liberty.

These two great sequents will as certainly follow, as that any effect will follow its appropriate cause. Men of different nations will thus find out that they are not natural-born enemies—that they are “all of one blood,” and further, that they have a common interest in maintaining the peace of the world, and *that* not merely in view of the awful calamities of war, treading, as it does, beneath its iron hoof, everything that is fair, and lovely, and of good report, but in view of *their mutual dependance* upon each other.—Who can enter the great Crystal Palace, and pass up and down the different apartments allotted to the different nations located upon far-distant portions of the earth, without being deeply impressed with a sense of their mutual dependance? In every one, he will find something which is peculiar to the nation which occupies it, and which other nations cannot, from their locality, or will not, for lack of profit, produce, but which they want in exchange for their own products.

And upon the heel of this argument comes up another, bearing upon the same point, viz.: that a nation, in injuring and crippling the prosperity of another nation, with which it holds commercial intercourse, is injuring and crippling itself, not only by bringing upon itself the more obvious calamities of war, but by curtailing its trade, not merely during the continuance of war, but often for a long time afterwards—at least till the injured nation recovers its prosperity. How

directly, then, is every nation interested in *promoting*, rather than *disparaging* the prosperity of every other nation with which it holds commercial intercourse?

I have spoken of the tendency of these gatherings of the nations to promote the triumph of the great principles of civil liberty. The monarchies of the old world have all been the natural-born offsprings of war. The thrones of earth, every one of them, have been established and upheld by the sword. Who, that is familiar with the history of the world, does not know this?—nay, more, that the lesser nuisances of the world, called “lords,” owe their origin, their titles, and their power, to the prevalence of the same demon-spirit in ages gone by? But the evils which war creates, it is the tendency of peace to destroy, and the virtues and principles which war destroys, it is equally the tendency of peace to promote. In promoting the peace of the world, then, these great occasions will equally promote the great principles of civil liberty, and hasten their universal reign throughout the earth.

Were these the only effects to result from the occasion, it would be one to be held in everlasting remembrance for the blessings it conferred upon mankind; and indeed a dignity and importance is hereby given to it, which no other consideration, not even the great originating one, can impart. And I should have deemed myself unfaithful to my trust, had I not given prominence to this view of the subject.

Go along with me, now, and I will point out to you some of the things in the exhibition which are worthy of your notice. The first object which attracts attention, and the wonder among all this world of wonders, is the great crystal palace itself, which to be appreciated, must be seen at a little distance—the different stories receding back (inwards) as they rise, like steps, which prevents a full view of its magnificence to one standing near it. Let us pass along that stream, called Serpentine River, which flows through the Park—and now you see it in all its sparkling grandeur. The vast extent of ground covered by the structure, the transparency of its walls of glass, its terraced elevations from story to story, its large transept, with its arched and glittering roof, shining above the vast vitreous expanse around it, present themselves to you here, as seen through the intervening trees, in all their splendor and magnificence, reminding you of nothing which you ever saw before. In all this vast metropolis, with all its palaces, (and I have seen and admired the costliest of them all,) there is nothing to be compared to it—nothing to equal it.

Nor is it as a mere matter of curiosity, as a glittering thing to flit pleasantly upon the vision, that this structure is to be regarded. That were far too low an estimate of its merits. Ornamental it is, in a high degree; its glittering beauties captivate and carry you away; but it has a high-

er claim than this, rising as it does from the ornamental to the dignity of the useful. In its construction is originated a new style of architecture, offering, for many purposes, advantages over every other, and surpassed by none in cheapness, strength, and durability.

Every part of the frame-work came from the hands of the moulder ready to take its place in the building, and one piece was put up after another, as fast as it arrived. First, a post was raised, then another post, and then a girder and connecting piece, extending from the top of one post to the top of the other, was raised to its place—at the opposite side of the square, (twenty-four feet) two other posts and a girder connecting them, were put in their places, and then more girders extending from the posts last raised to those first raised, completes a section of the frame of one story of the building; and all that remains to be done, is to go on repeating the process, until the whole is finished. There will, of course, be only two posts to each bay, as it is called, to be raised, for the most part, after the first one is erected.

The posts and girders were raised to their places by that very simple contrivance, technically called "shear-legs," which consists simply in lashing two poles together at their heads, and placing them at such an angle of inclination to each other, as to form an apex at the top, from which apex ropes were extended, each side, to the ground at a distance, where they were fastened to stakes, and thus the poles were held in their places. From the same apex, a series of ropes passing over pulleys, were suspended; and by this simple and apparently frail contrivance, every piece on the building was raised to its place, story rising above story, *all at once*—the first story progressing a little in advance of the second, and the second a little in advance of the third, (wonderful to tell!) until the whole was finished.

It was only seven months in building, but there were over two thousand hands at work upon it for the last three months. There were between four and five hundred painters upon the building at one time. Great praise is bestowed upon the workmen employed upon it. The panes of glass are four feet one inch by ten inches, and yet one man inserted and glazed one hundred and eight panes in one day—being 367½ feet. That, however, was an extraordinary day's work.

The great conception was struck out by Mr. Paxton, a horticulturist, and is but an improvement upon a green-house which he had originated for his own garden.

As a whole, it is a noble monument of British ingenuity, British industry, and British resources. That the castings should all have been made so true and exact, that such an enormous quantity could be furnished so readily, that all of them should have been lifted with such dispatch

to their places, and that the whole should have been completed by the very day set sixteen months before for its delivery to the commissioners, and that without any material accident having occurred to the workmen employed upon it, is truly marvelous. Nine months had been frittered away in deliberating upon different plans, previous to the adoption of this, which was only thrown in at the last hour.

Another wonderful thing is, that it is just large enough to answer the purpose—neither too large nor too small. I should have said that the strength of every piece in the building, was tested before it was put up.

It will be seen from this representation, that the pictures of the crystal palace which have been circulated in the United States, are perfect humbugs, furnishing very erroneous views of its exterior.

Respectfully yours,

WARREN ISHAM.

NUMBER VI.

The Great Exhibition--continued.

LONDON, June 8th, 1851.

We will now enter the great crystal palace, and take a survey of its contents, and I forewarn you, that unless you possess the power of abstraction in a more than ordinary degree, you will be bewildered and lost, and unable to fix your mind scrutinizingly upon anything, amid the vast multiplicity of objects which open upon your vision, and spread themselves out upon every hand. Here are all the great countries of the globe engaged in friendly strife, to excel and eclipse each other by the splendor and magnificence of their productions—England, France, Holland, Belgium, Sweeden, Norway, Russia, Prussia, Austria, Saxony, Bohemia, Hanover, Bavaria, Westphalia, (and other German States,) Denmark, Switzerland, Spain, Portugal, Sardinia, Italy, Greece, Turkey, &c., in Europe; Algiers, Tunis, Egypt, and the Cape of Good Hope, in Africa; Syria, Palestine, Persia, Hindostan, Ceylon, China, &c., in Asia; Boreno, Sumatra, New Guinea, New Zealand, Australia, Van Dieman's Land, &c., in "the South Seas;" Barbadoes, Trinidad and Jamaica, &c., in the West Indies; Guinea and Brazil, in South America; Mexico, Canada, New Brunswick and Nova Scotia, in North America; and a great country which is put down on the map of the world as the "United States of America," located somewhere between here and sundown.

If you enter at the east end of the building, and raise your eyes a little as you pass in, you will see, posted in large capitals upon the galleries on either side, "UNITED STATES," and just underneath, extending along for some distance, the names of about thirty different States, into which this great country is divided, all presenting their contributions. I confess I know not what strange and mingled emotions thrilled thro'

the frame-work of my soul, as my eye ran along the list, as though from every name in it proceeded an indescribable spell.

And here let me forewarn you again, that the productions of the great country of which I am speaking, here exhibited, do not fairly represent it; and furthermore, if they did, that, so far as show is concerned, they would be totally eclipsed by those of many other countries, because—as I am told—it is a great way off, and because, being only in the 77th year of its national existence, it has not yet had time to descend from the useful to the ornamental. Hence, you must be prepared to see far more attention bestowed by the gaping mass upon the trappings of royalty, such as four furnished royal apartments of the tyrant of Austria, and the baubles appertaining to courts and the drawing-rooms of princes and nobles, than upon the mighty products of human genius, which confer substantial blessings upon the world, and conduce to the elevation of the race.

Not that I would discountenance all attention to the elegancies of life; for, kept in subordination to the useful, they are highly commendable and praise-worthy—but when matters of mere taste take the precedence, so far as to constitute the leading characteristics of nations or of individuals, then farewell to that masculine energy which conduces to individual and national greatness. Read the history of the world—trace the progress of the nations of the earth, in their rise and fall, from the beginning down, and see if it be not so.

Still, comparatively meagre as is the display of articles from the United States, they are by no means despicable, even in number and variety; and in *solid utility* they are not surpassed by those of any other country, unless England be an exception.

One of the first objects which strikes attention, is a large iron safe, labelled thus: "This safe contains two hundred pounds, which will be given to any person who will pick the lock, or who will open it with the key belonging to it." The bit end of the key is composed of fifteen pieces, which, by transposition, admit of 1.300.000.000 (one billion three hundred million) changes, as any one can satisfy himself by applying the rules of permutation, and, by the same rules, the addition of one piece more would multiply the number of changes, of which it would be susceptible, sixteen times. And whatever shape you put the key into, in subjecting it to this almost countless number of changes, it will still open and shut the lock equally well. The price of the lock is from twenty to fifty pounds.

Who ever dreamed, even in this age of invention and discovery, that a machine would ever be constructed to take the place of the servant girl—do house-work, and perform the labors of the kitchen? But here are a couple of them, from Joel Huntington, of Ogden, New York—

one of them to wash dishes and the other to scrub floors. In operating the first, the dishes to be washed are placed in a rack, in an upright position, and by turning a crank they are twisted about in soap and water, which effectually removes the dirt. The water is then drawn off, and clean boiling water put in, and the crank turned again a few seconds, when the dishes are clean, and can remain in the rack until required for use. In operating the other, all that is necessary is to turn a handle, move it every square yard, and supply it with clean water. By turning the crank, it scrubs the floor, wipes it up, and wrings the cloth.

And there stands a fire-engine, which throws seven streams of water, three of which reach an elevation of a hundred and sixty feet. And here is a new steam-engine, from Mr. A. A. Wilder, of Detroit, the motive power of which is applied directly to the driving-wheel, without the intervention of cylinders, piston-rods, walking-beams, steam-chests, condensers, or other apparatus, the driving-wheel being a submerged one. Also, a lee-way indicator, and fog-whistle for light-house stations, by the same. New York, also, sends a locomotive which consumes its own smoke and is noiseless, designed to run on rail-roads within city limits.

And yonder is Prof. Page's machine, propelled by electro-magnetism, which has excited so much interest in the United States, the engine being between four and five horse power, and operated by a battery contained within the space of three cubic feet.

But what is here? It is a set of punching machines, of great power, furnished as they are with rolling, or knuckle joints, and long levers passing through a space of many feet, and moving not more than half an inch.

And do you see that India-rubber life-boat, six feet long, and yet so constructed that it can be folded up and put in one's pocket with ease?—and that umbrella, which can be disposed of in the same way?

That is an autographic press, from Boston, by which a letter written on prepared paper can be transferred to a metallic plate; from which any number of copies can be taken on common paper—and that other small machine, also from Boston, will magnify a daguerreotype, of miniature dimensions, to the size of life, or larger, and reflect it upon canvas, from which the artist may paint it.

And there is that coffin, made of a composition of metals, from which the air can be exhausted, and in which thus exhausted, a human body, can be preserved for ages. It contains a bouquet of flowers, placed in it months ago, and still retaining their freshness.

And Judge Burt's compass, which detects and shows the amount of all local interference with the needle, as in mining districts, is there, a highly useful invention.

And then there is a goodly assortment of agricultural implements, upon some of which I saw inscribed the name of A. B. Allen, of New York. There are Starbuck's plows, of different sizes, and gilded off in fine style, McCormick's reaper, cultivators, &c. There is also a magnificent set of harness, from Philadelphia, valued at \$3000.

There are numerous specimens of cotton sheeting and bed ticking from Boston, and from New York and Massachusetts, specimens of flannel, blankets, woolen shawls, and fulled cloths, and printed cotton for dresses, all nice. There is morocco leather, Genesee flour, Indian corn, maple sugar, mustard, smoked hams, oil of peppermint, Vermont wools, Merino wools, fancy soaps, stained glass, lard oil, (winter pressed) velocipedes, Connecticut clocks, &c.

Furs, of great beauty, are also exhibited, and robes, the patch work of which is made from the skins of a thousand animals—also, light and elegant wheel carriages, stoves and grates, of various descriptions—a piano, with several new adjustments, possessing great advantages, of charming tone, and high finish.

There are to be seen also, lead, iron, copper, and gold ores, pig iron, finished iron, and steel; also, samples of unmanufactured cotton.

The Wenham (Mass.) ice men are here, with their solid water, and prepared to show how to keep it from running back into a liquid state.

And there are some very fine oil paintings, Power's Greek Slave, and Stephenson's dying Indian Chief, capital.

From New Jersey came a monster specimen of red oxyd of zinc, weighing eight tons, a mineral which is to be found no where else in the world.

A collection of leaves of the American forest is exhibited by Mr. Banneville, arranged in national order, upon sheets of paste board, and bound in rich colored velvet, with gold clasps and covers, so prepared as to retain their natural color, exhibiting the foliage of our forests, not only in their summer glories, but in their autumnal hues, which last one is peculiar to America, and seen in no other part of the world.

Such are the leading articles found in the department of the crystal palace assigned to the United States, a country, which a London pamphleteer speaks of on this wise in connection with the exhibition. "The United States of America, tho' now an independent Nation, great and flourishing, and, in some degree, our rival in the commerce of the world, strictly speaking, is a colony of this country, and in fact, may be called a vigorous young England, with similar customs, habits, and institutions." All that is claimed here, is the honor of the parentage of such a country. The slight error about the parallel of institutions is quite pardonable.

I shall transmit, from time to time, as my health will permit, an account of such things in

the constitutions of other countries, as appear to be deserving of notice, and there are a great many such. My health is again at a stand, and I have had frequently to stop and lie down a few minutes, while writing this. Hereafter, I must favor myself more. I was fortunate in securing a commodious room at an excellent public house in one of the most delightful parts of London, elevated and airy, at a guinea a day. I design spending about a month here, before starting upon my tour North. I have not yet met with any American acquaintances, having had no time to look for them.

Respectfully yours,
WARREN ISHAM

NUMBER VII.

YOUNG AND OLD ENGLAND.

LONDON, June 10, 1851.

In my haste, I introduced a London pamphleteer (or rather the author of a book, of some 220 pages,) and allowed him to open his mouth and speak, after his own fashion, and in accordance with his own impulses. But those last words of his; "Similarity of institutions," making the institutions of my country a *fac simile* of those of old England—nobility-ridden, king-ridden England, have been operating as a nauseate ever since, which even the cordial he at the same time administered, has not been able to allay. In many things, I am ready to confess, there are points of similarity, but it is not in these, so much as in those of difference, which constitute the glory of my country.

On the other hand, I am equally ready to confess, that in some things, the difference of institutions is in favor of England. As I have endeavored to show, her system of civil police, is infinitely superior to ours, at the same time, that from our position, exposed as we are to a constant influx of strangers, of every description of character, from different countries, as well as from different parts of our own country, we, of all the countries of the earth, would seem to need a well organized and efficient civil police, especially in our cities. And sure I am, that if our people were once to experience the benefits of it, they would appreciate their sense of security under it, far above the outlay it would cost them. And many other things, in which the odds are against us, and in favor of England, will doubtless force themselves upon my attention, in the course of my observations.

But, with all these concessions, the differences in favor of my country, are vast, beyond anything I had conceived before coming to these shores.—With all their boasted free institutions, every man in England has his harness made for him, and work in it he must. I do not mean by this, that every man must obey the laws of the land, for that, as I have shown, is a praise-worthy feature of the government. But I mean, that there

is that in the very frame-work of society, and in the constitution of the country, which is at war with every principle of free government, subordinating the many to the few, and making it impossible for them to be any thing else than what they are. We look with detestation upon the Patrician and Plebian distinctions of ancient Rome, but the distinctions which prevail in society here are no less marked.

As an evidence of this, the current language of the newspapers of England, is sufficient, apart from every other consideration. The London Times, of Friday last, speaking of the very large number who visited the crystal palace the previous day, expresses its surprise, that there should be so many, as the weather was unfavorable, so as to keep the nobility away, and adds, "but the class of persons who visited the exhibition, were not so sensitive to the changes in the barometer, as their superiors." And yet the class of people alluded to, were the merchants, the professional men, the manufacturers, as well as the laboring men of England, together with multitudes of respectable foreigners of all classes. One would think, that if the people had not lost all self-respect, they would not submit to such insolence from a drivelling editor—and yet, few here would think of taking exception to such language, so accustomed are they to regard those who are placed over them, as "their superiors," as if they thought they were made of more refined dust than themselves, notwithstanding they may be the greatest blockheads in the kingdom. Indeed, I have met with not a few, who seemed to look upon the nobility with a sort of pride and exultation.

And yet this same nobility, it seems, feel themselves disgraced, by mingling, at a respectable distance, with these very persons, in the great crystal palace. During the first days of the exhibition, the admission fee was put so high as to exclude the laboring class, on purpose to accommodate them, and when it was reduced to a shilling (22 cts.) they staid away. The queen, however, who is a very excellent, animated and intelligent woman, still attended as usual. These dainty Highnesses, however, still have one day in the week, on which they can visit the exhibition without much danger of having their sensibilities shocked, by seeing the hard-fisted yeomanry of the country there, the admission fee on Saturday, being a crown. I observed a large number of them there on last Saturday. Here and there one, of the less sensitive sort, is seen, there on other days, the example of the queen having shamed them into it.

When they first commenced staying away, the press conjured them to attend, using two arguments with them; first, that their attendance would draw out the common people, and second, that altho' it might be unpleasant to them to mingle with the laboring people, yet the effect

would be so salutary on them, that it seemed to be a duty on their part, to submit to it.

Such things sound strange in republican ears, and I confess, that I never take up an English paper, without finding something of that sort in it to excite indignation and loathing.

But if that were all—if it were a mere name, an empty title, simply, that made the difference, the case would not be so bad. But the evil strikes deeper than that, and goes down, not only into the pockets and purses of the laboring classes, but saps and undermines the very foundations of those higher traits of character, without which they can never rise to the high level of independent freemen. I speak in general terms; exceptions, here and there, will of course be found. But under such circumstances, there is a general stagnation, an inertness of character which incapacitates for great and vigorous effort, in anything.

True, England, as a nation, is prosperous, wealthy, and great, with "a dominion, upon which the sun never sets." But it is the labor of those who have no part nor lot in the matter that has made her what she is. The laborers of the country in her manufactories, in her work-shops and her fields, upon the decks of her vessels, and upon her battle fields, have given her all the wealth and greatness, of which she can boast, while they themselves have been robbed of their reward, and are looked down upon as a lower order of beings, fit only to toil for the benefit of "their superiors." There are millions of this character upon this Island, and in India, there are tens of millions laboring for the aggrandizement of a company of extortioners and swindlers, who are upheld by the home government, for the sake of the trade and the spoils which they bring her. And yet, we are to be told, forsooth, that the United States is "a vigorous young England, with similar customs, habits and institutions."

If the institutions of a country, are to be judged of by their points, by their effect upon the mass of the people, then are these of the two countries as dissimilar as light and darkness, the one conducting the elevation and aggrandizement of the few at the expense of the many, and the other conferring equal benefits upon all, leaving each and every one to rise or fall upon his own merits, and by his own efforts.

And this odious feature in the government of this country was inherent in its original constitution, the favored few having enjoyed their monopoly, as a *prescriptive right*, from its original foundation, and it is so interwoven with the whole texture of its organization, that it seems difficult to destroy it, without demolishing the entire fabric, and reconstructing it anew.

This, perhaps, may be done by piece-meal, thro' a slow and long protracted process, and indeed, this process has been already commenced, as I have said, in the repeal of the corn laws, which took the bread from

the mouths of those who raised it, and gave it to "their superiors," scarcely one in twenty of the laboring classes being in a situation to enjoy the luxury of a wheaten loaf from year's end to year's end. Well, that was a triumph, and I trust, the prelude of a succession of triumphs, which are to give liberty to England. Conversing with an intelligent commoner, the other day, who expressed himself freely upon the subject, and appeared sanguine in his expectations of a general and fundamental reform, I remarked to him, that the organic law of the land, in upholding the aristocracy in their exclusive privileges, seemed to oppose an insuperable barrier to such a consummation, without a revolution. "That revolution," he replied with energy, "will and shall be effected; that odious feature of the government shall yet be wiped out, but it will be done peaceably and without bloodshed, the ball is in motion, the first of a series of steps leading to this result, has been taken, and the remaining ones will be followed in due time," or words to that effect. He went on to expatiate upon the steps to be taken, one after another, and remarked, that the estates of the nobility in England, would ultimately fall into the hands of the commercial men of the country, who were now laying up their encumbered and forfeited estates in Ireland, where they were not thus protected.

There is manifestly a growing feeling of good will among the people of England towards the United States, and a constantly increasing appreciation of her institutions. A vast luminary which has risen upon the other side of the Atlantic is shedding its mild and benignant, its cheering and inspiring light upon these distant countries, and the darkness of ages, is rolling away before it.

Truly yours,
WARREN ISHAM.

NUMBER VIII.

Young and Old England—Continued.

So then, that "great country," called the "United States of America," is "a vigorous young England"—is it "with similar customs, habits and institutions?" So says the London pamphleteer, and the best and largest of them here are proud to acknowledge us as the offspring of old England, "a chip of the old block," and will pat us, and fairly smother us with their caresses, so long as we are content to remain in the leading strings to our old mother, and acknowledge our indebtedness to her for all that we are, and ever hope to be. But the idea of our ever trying to be anything independently of her, and especially of our claiming superiority to her in anything—pooh! it's all nonsense—perfectly ridiculous!

I am now speaking of the feeling which prevails among the higher order of creation here, as high up as the throne itself, and the lesser orbs which revolve around it, and as low down as the

upstart gentry, who can barely manage to raise themselves above the gaping masses.

Well, we had a pretty exemplification of the nature and tendency of British Institutions, as set forth in the Times of yesterday morning, and as witnessed at the great exhibition the day before, one which exhibits the superiority of the institutions of my country in a light which should cause the boasters here to hide their heads for shame—if they have any.

Says the Times, "a most interesting spectacle was witnessed at the grand exhibition yesterday; nearly eight hundred agricultural labors and country folks from the neighborhood of Godstone, Savoy, made their appearance at the crystal palace, in marching order, like a regiment of soldiers, under their leader, the clergyman of the parish. *The men paid one shilling and six pence towards the expenses of the trip, the remainder of their expenses being paid by the gentry in the neighborhood.* They were as perfect a specimen of rustic attire, rustic faces and rustic manners as could be found in England, and bore the marks of a laborious life, little relieved by intelligence and education. As they were about to leave, the town folks gathered around them, and from curiosity, not unmixed with pity, asked them many questions—how they liked the exhibition—whether they could understand what they had seen, and whether they wanted to come again?"

Here is a picture drawn by their own hands, and therefore not to be called in question—and what a picture truly! Here, the class which constitute the bone and sinew of the country, and which creates by its toil, the wealth of the country, is represented as being so depressed in circumstances, as to be unable to pay their own expenses fifteen or twenty miles to the exhibition, and so depressed in circumstances, as to have a good proportion of their expenses borne for them as a *gratuity*, by the *gentlemen* whom they serve, and to be marched like puppets, into the exhibition, under the scornful and "half-pitying" eye of their "superiors," and to crown the whole, they must be exhibited in a manner which a child six years old, in the United States, would resent, but which these people no doubt regarded as an evidence of the kind regards of "their superiors."

What say you, farmers and laboring men, of the United States, to this? How is it—does the case stand thus between you and the "gentry" around you? Nay, if indeed there be any such class as the one last named, would you not as soon be expected to pay their expenses to an exhibition, as that they would be expected to pay yours? And what say you to such catechising?

But there is no such class, thank heaven, in our country. There the term "gentry" means, not only the nobility, but all who are lifted above the necessity of labor and business of any kind,

and spend their time in idleness, or rather in riding, hunting, gambling, horse-racing, &c., and who consider it a disgrace to stoop to any kind of business. Sometimes I perceive, a distinction is made between the nobility and gentry, but both are known by the same general characteristics. The class in our country which most nearly resembles them, is what we call "blacklegs." I say "most nearly"—not that I would intitiate that there is a general resemblance, but only, that there are *more points of resemblance* to them found in that, than in any other class among us. Do the English nobility and gentry disdain business and spend their days in idleness? So do our blacklegs. Do the former devote themselves to gambling, horse-racing, and general lounging? So do the latter. Does the one live upon the toil and sweat of the million? So does the other. The former, it is true, neither pick locks or pockets, as do the latter, for they are under no such necessity, and while our blacklegs have a mark set upon them as the lowest order of creation among us, these people are titled as the highest. It is also true that there are not wanting honorable exceptions among the nobility, as to character, some of them being exemplary in their lives. But I spoke in general terms.

I may be thought unfair in drawing such a parallel, and especially as I have already received some marks of civility from the very class whom I am thus depreciating, and expect to receive more in my progress through the United Kingdom, but I was honestly casting about for some class in my country to compare them to. I first thought of the wealthy, but our wealthiest men are generally our busiest, and if here and there one retires from business utterly, he seems to loose all his consideration in society, and generally speaking, he becomes dissatisfied with himself, and rushes back into business as a relief.—All our people, it is true, do not toil at the spade, or the plough, or the plane, or the anvil—but all are engaged in some useful occupation—some in producing the raw material, others the manufactured article—some as carriers, thus when an interchange of commodities, is affected, and others as tradesmen, thus when those commodities are made accessible to the producing classes, and to others,—some filling the different professions, and others the offices of state, but all are essential parts of the great whole, and all, like the wheels of a machine, contributing to the great result.

But, in all this complicated, yet harmonious organization of society in our country, there is no place for the blackleg, and so far as he finds place, the whole is thrown into confusion and ruin. Here they have the ruin without the confusion—systematic ruin, by reason of their having originally introduced this useless order of beings, (to use no harsher term) into the machinery of their organization. Under the scrutinizing eye of the political economist, how can they be re-

garded in any other light than as public nuisances? I presented this view of the subject to a shrewd business man the other day, and he remarked in reply, that the class of persons to which I alluded, could be regarded as no more or less than public paupers, and were a curse to the country.

If any of our people have an itching for aristocratic distinction, they have only to come here to get effectually shamed out of it. Just consider, that they have no less than twelve different classes of society here, all regularly laid off, at the head of which stands the title of Duke, and at the foot that of Mr. The first being worn, perhaps, by some great, lubberly booby, and the last by such men as Richard Cobden. An aristocratic aspirant from America, stands no chance at all with the higher order here—at any rate, no more than any well clad, well behaved man, nor half so much, if he be a man of education, and capable of holding an argument which it puts them to their wit's end to meet, and perhaps to understand.

And, thanks be to that overruling providence which guided the pilgrim fathers to our shores, neither have we any such class as that to which the famous regiment of eight hundred, above spoken of, belong. There are exceptions, it is true, to the general intelligence of our laboring classes, but as a body, they will not suffer in point of general intelligence, in comparison with any other class of men in our country, and it is upon their shoulders mainly, that the institutions of our country must rest, while the corresponding class in this country are, most of them, quite content to be relieved from all such burdens, by "their superiors," and to sink down at their feet, into a state of absolute stupification.

This, fortunately, is a class from which we are not likely to receive very large accessions to our population, as they have neither the spirit nor the means to emigrate. An intelligent man remarked to me the other day, that we were getting away all the best men in England, and leaving the paupers, (meaning the paupers which stand at the two extremes of Society here.)

In conversation with a large manufacturer from Bath, the other day, I referred to the depressed condition of the laborers in his employ, and asked him if there was no hope for the laboring classes in this country. "None at all," was the prompt and candid reply. He admitted their general degredation, but it was a matter of iron necessity, he said, under the existing order of things, and he saw no way possible that it could be remedied.

The Times has been speaking of reducing the admission fee to the exhibition to one shilling, on four days of the week, as opening the door to the poor laboring classes of the country, and it has been wondering why they did not come. At last, the Whitsun holidays came, and then to a certainty, the Times man expected a rush from

these classes. But the Whitsun holidays came and went, but the laborers came not; and this shrewd man—and shrewd he is in every thing else, beyond most men—exclaims in astonishment, that “the Whitsun holidays, when the laborer is released from his toil, have closed, and yet there has been no such rush from the laboring classes, as to derogate from the *respectability* of the exhibition as a place of resort.”

I referred the Bath gentleman I have spoken of, to this paragraph, and asked him why the laboring people did not come in, as the Times expected? He replied, that “the Editor of the Times must be poorly informed in regard to the condition of the laboring classes, if he did not know, that it was not enough, that they should be released from their toil, and the price of admission be reduced to a shilling—there were the expenses of the trip to be borne, and the laborers had no means on earth of meeting them, although rail road prices, too, had been reduced to accommodate them.” The consequence is, that but few of those classes who constitute the mass of the population of England, have visited the exhibition at all, nor have they any hope of so doing; and I doubt not, I may add with truth, that multitudes of them are so stupefied under their oppressions, as to have no desire to do so. The more I see of them, the less I wonder at such language as the above, in reference to their presence derogating from the respectability of the assemblage.

And so much the more shame to the government which thus derogates the great mass of the governed, and the more fearful the account which stands over against it for final adjudication.

And yet these very classes make the best of soldiers and sailors. They are so accustomed to subordination, and to look up to “their superiors” as something to be proud of, and have so much of the local affections of the mere animal about them, that they will fight like bull-dogs from pure love of country, and the glory of the “superiors,” of which they make their boast.

There are exceptions, of course, but rest assured that there is more truth than poetry in this remark.

With such a mechanism, and such materials, what could prevent a nation from becoming great and powerful—and with such elements in its organization, what can prevent its dissolution, when the unnatural force which has held them together, shall, in the lapse of ages, have given away? Indeed, already are there indications the process of dissolution has begun. Of these indications, I may speak hereafter, if I can, but I find so many things crowding on my attention, that some of them will be very likely to get postponed, as a matter of necessity.

To prevent misapprehension, I will here remark, that mid-way between the two extremes, of which I have spoken, there is a middling class, who are not above business, but are prop-

erty holders—personal only, generally—and embody a good degree of intelligence, and are the real conservators of the country. With them all reforms originate, and if they can manage to arouse the stupid masses beneath them to a sense of their dignity and interest as men, they can carry all before them. And the great question to be settled is, *reform or dissolution*, and settled it must be, for that is the only alternative.

I will simply add, that the more I see of the exhibition, the more I am astonished at its extent and magnificence. My health has not admitted of my visiting it much, although I have been here nearly two weeks, but I trust I shall be able to give more attention to it soon. I have written quite too much for my state of health, but I see so many things that interest me and that I know would interest and perhaps profit my countrymen, that I cannot resist the temptation to write them down in my poor way. I design upon a future occasion to examine more fully the mechanism of this government, and show more the preposterousness of the claim they set up to a similarity of Institutions to those of the great American republic. At the same time, I shall give them credit for many things in which we are deplorably, not to say culpably deficient.

In the mean time, I design not to overlook the exhibition, but hope to glean a great many useful lessons from it; there are certain great principles developed by it, which I deem of vast importance to my country, and which I shall try to take up in due time.

Notwithstanding the vast number here from abroad, the people of London are greatly disappointed, that there are no more, as they had made calculations for a much larger number.—There are only twelve hundred names as yet registered from the United States.

Respectfully, &c.

WARREN ISHAM.

For the Michigan Farmer.

RUST.

MR. EDITOR:—In reply to friend W., I would say, as I have said in a former communication, the reason that the rust affects certain spots, is because those spots are greener than the rest; look and see next time, and if the straw splits and lets out the juice, do the husks, leaves and chaff split? for the rust is on them too. I have cut wheat that was not rusted and went to binding, and in less than two hours the standing grain right along side was rusted, but being nearly ripe it was not injured much.

RUSSELL COBB.

P. S.—I should like to have some of your correspondents or yourself, write on the subject of plaster. How so small a quantity can do so much good, and how it operates, whether it draws something from the atmosphere or from the soil that induces fertility. I know that it will

keep a summer fallow from getting hard in a dry season, and on dry light land, and I thought it was because it drew the moisture from the atmosphere. I have noticed where clover was plastered there was more dew than where it was not; but it does best on wheat when sown on the fallow.

A neighbor of mine told me of an experiment that a man of his acquaintance made with plaster. He got a quantity of clam shells and put the plaster in them under some hills of corn, and plastered some in the usual way, the effect was equal. In sowing plaster be careful to sow in a still day, the damper the better, and do not throw or dash it as you would wheat, but strew it backwards and forwards lightly, as near the ground as may be, because it rises and blows away very easily.

R. C.

Hadley, May, 1851.

For the Michigan Farmer.

ON BEES—No. IX.

This is done by inserting a large sheet of tin between the main body of the hive and the drawers: it should be gradually inserted, first with a view of cutting the comb that may pass through the holes, and with the further view of keeping the bees from passing out through the holes until the operation is performed. As soon as the tin is inserted remove the drawers, and again examine them, and if they appear to be filled, remove them, and place empty drawers in the places from which the full ones have been taken; if they are not filled, it is better to replace them, and let them remain a few days until they are finished. If we conclude to remove them, carry them a distance from the bee house, place them bottomside uppermost, and the bees will soon leave them and return to the hive. The better plan is to remove them to a room that is nearly dark, having an opening of perhaps a pane of glass for light, and for the bees to escape. If in the examination of the drawers in the fall any should be found to be partially filled, they should be removed or turned bottom uppermost; or, which is better, remove them to a warm room where the honey will not freeze and crack, and in the spring replace them upon the hives, when the bees will finish what they left unfinished in the fall.

It is a common practice in the fall to take up, or in other words, kill those swarms that are light or supposed not to have sufficient honey to sustain them through the winter. This practice should be abandoned at once. If it is suspected that a swarm have not honey enough to sustain them through the winter, they should be fed; it is preferable to do this in the warm weather, in the fall, and in the following manner: Place pieces of comb filled with honey under the upper section of the hive, (the place intended for the drawers,) and the bees will carry it below and store it for winter use. This is the better mode:

if this is not done, drawers filled with honey may be placed under the upper section for their use. This plan, however, is very unsafe, for if perchance the honey in the main body of the hive should be exhausted during very cold weather in the winter, they will not be able to get the honey from the drawers in consequence of the cold, there not being sufficient room in a drawer for the body of the bees, and those attempting to feed from the drawers would perish. They may be fed in the spring, but it is better to do it in the fall. They should be fed abundantly, for if their honey should fail in the spring before the blossoms put forth or even after the blossoms have put forth, and it should be cold, wet or unpleasant weather, so that they cannot work, the first fair day thereafter they will abandon the hive in a body. This is more frequently than any other the cause of their leaving after having been taken from the trees in the woods and transferred to hives. I have lost many a fine swarm from no other cause than the want of honey.

The reader may have expected many things demonstrated in the foregoing articles, which are, however, omitted, necessarily, in a publication of the character of the Michigan Farmer. All that can be done is to give an outline, or some general ideas and directions, which it is believed will lead to a further investigation of the subject, and the examination of publications exclusively devoted to the subject, which, together with experience, will be of material advantage to the farmer, or those disposed to engage in the keeping of the honey bee.

The structure of the Worker is too well understood to require any particular description.—The Queen has already been sufficiently described, to enable any person to select her from amongst her subjects.

The Drone is the male bee, and is a *drone*.—Many minor peculiarities might be selected of the bee, such, for instance, as that the honey comb or wax is not gathered from flowers, but is a secretion from the body of the bee; that there are but two or three Drones left in the hive during the winter; that kind usage and familiarity with man, allays their querulous propensities; that when their hive is broken to pieces and they are conquered, they will not sting; that when so conquered, they may be distinguished by the sound of their wings from those unconquered; that the Queen has none other government of the swarm, except it be that of influence, and that they will go to work and continue their ordinary labors of forming comb, gathering honey and bee-bread or pollen, with the same ambition with no other than a dead Queen suspended in the hive by a string; that they are an insect of extraordinary habits, and if the hive is removed four inches during the day they will alight upon the bottom board that distance from the mouth of the hive on their return from the fields, and it will require days for

them to eradicate this habit. This peculiarity should be regarded in the swarms removing from one situation to another; they should always be removed immediately after having been confined by weather for a length of time to the hive, unless they are removed to a distance beyond their ordinary range, say two or three miles. The winter is the best time to remove them, except those that have just been hived; consequently, a swarm may be entirely destroyed by removing them a few feet. If it is absolutely necessary to remove them, the entrance to the hive should be closed three or four days, the ventilators kept open, and water given them, as directed in preventing robbers.

With this article, I must close my remarks upon this subject, hoping that I have been sufficiently explicit to be understood, and believing that a due attention to the foregoing will, at least, be of some trifling advantage to the readers of the Michigan Farmer. I shall feel amply compensated for the effort here attempted, to assist the farmer in his labors.

Very respectfully,
Your ob't servant,

* * *

For the Michigan Farmer.
ABOUT DRAINS.

PORTER GRANGE, Cass Co.,
May 22d, 1851.

Mr. Isham: Better late than never. I here-with send you one dollar for your new volume, for one year, commencing with the July No.

It being a rainy day, I thought I would send you a few remarks about ditching and draining marshes.

I have on my farm a field of not more than 6 acres, with a deep ditch nearly all round. The ditch, when first made, was from 5 to 7 feet in depth. I plowed this field up, and have had it in rutabagas twice, corn once, and rye once; then to clover, red top and timothy, but there is a place near the middle, a few rods in extent, that is not dry. When in corn, some of the rows we could not get the horse through without miring down. I had recourse to an under drain. I had it cut two-thirds across the field, 2 ft wide at the top, 4 feet deep, tapering at bottom in the form of a V falling into one of the ditches around the lot. A copious stream of water is running into the main ditch. This I design covering and the field will be dry.

I have had a good deal of practice in draining wet land. I drained land 22 years in England, and have been 19 years in Michigan. I have more than 2 miles of ditches, from 2 to 7 feet in depth, and from 9 to 4 feet in width. I have drawn the stagnant water from 100 acres of low marsh land.

W.M. HEBOON.

NOTE.—We have condensed Mr. H.'s description of his manner of making under drains, in or-

der to save room. His plan is to take bass-wood and split it and cut grooves on the flat side, and place these in the bottom of the drain. Then fill in with small stones to keep them in place, and lay upon the groove a flat stone. Then fill in with brush, straw, corn stalks, &c., &c.; lastly the earth. Mr. H. thinks these drains will last for ages, but we doubt it.

C. B.

For the Michigan Farmer.

HOUSING SHEEP.

Mr. Editor: As I have had some experience, I venture to give my views in a brief manner in regard to the system of protecting sheep from the pelting storms during the winter season of the year.

There is nothing appertaining to the husbandry of this State so much neglected as good and ample shelter for sheep.

It is generally the case with the farmers of Michigan, that they leave their flocks to seek protection from the pelting storms of the fall and winter, behind an old straw stack or brush fence; while, on the other hand, they will throw up an old straw hovel for their cattle, which is very often worse than nothing.

It is for the want of good protection from the driving storm, and wholesome food, that there is such a loss sustained in the flocks of Michigan annually, during the winter and spring season of the year.

A farmer enters a bitter complaint to his neighbors, that disease has entered his flock and is taking them off by scores—"Indeed, sir; have you used any preventive! Please give a history of your management during the winter."

"Well, they have had my whole farm to range at pleasure; there is a plenty of sorrel for them to nip, but the most of the time they have been on my low meadow. I noticed about every stormy day they would be down there, pawing up the snow to get hold of the frozen grass; there is a straw stack up at the barn, which they have access to when they choose, and the east side of the barn, which makes a very good wind breaker, and I can give no reason for their dying off at such a rapid rate."

"Sir, you have laid the very foundation yourself, for the disease in your flock; you have transgressed the fundamental laws of nature, and you are only receiving the penalty. Justice but demands her own, with interest, annually. You have not sheltered your flock during the hard rains last fall nor the driving snow storms in the winter."

"My sheep have been protected in a comfortable shed the most of the time, since the first of December to April; a part of the flock were not out doors from the first of December to the 18th day of April; they were divided into flocks as I thought proper: each apartment was supplied

with a box of salt, and they were watered in the shed. I fed every day, 3 lbs. of wheat straw, 3 oz. raw potatoes, one gill of corn and shorts per head. They came out this spring in good condition. There is not an unhealthy sheep in the flock."

"What! don't you fodder out doors at all?"

"Not unless the ground is covered with snow. I do not object to foddering without at noon, if the hay is spread on clean snow and the sheep run a few rods to cleanse their feet before reaching the hay."

"But, sir, there are many other reasons which may be given to sustain the practice of housing sheep."

"No one will pretend to deny that housing materially increases the weight of the fleece, adds to the length of the staple, and gives softness and strength to the fibre. It also adds greatly to the number of lambs."

This day, (first day of May,) is a cruel stormy day for lambs; even while I am writing this article, I have four lambs dropped in the shed and they are doing well; if they had been in the field, I should have lost every one of them. Thus stands forty dollars in one day in favor of the shed.

The saving of manure is another great benefit derived from housing sheep. The manure is all saved in a compact body. The floor of the shed should be covered with a thick layer of straw every day;—this will consume quite a pile of straw in the course of the winter. Thus you see you will have your straw fit for manure early in the spring.

There is a great saving in fodder also to be credited to the practice of housing. A flock of sheep will not consume more than two-thirds of the fodder when kept in the house, that they will when foddered in the lot. Yours, &c., W. S. C.

CULTIVATION OF THE RUTA BAGA.

According to promise, I now send you an account of the ruta-baga crop I raised the past season, on two acres, six or seven rods of which were nearly destroyed for the want of an underdrain. The whole crop was 1,800 bushels. The acre which did not require underdraining, grew 1,015 bushels.

The field used to grow this crop, had been laid down to grass for the last ten years, and the crops taken off without the use of manure during that time. The soil is a dark-colored gravelly loam.

The manure used for the two acres was a compost of 10 loads common barnyard manure, five loads of scrapings of the bottoms of charcoal pits, 30 bushels poudrette, five bushels of ashes, and four bushels of plaster, thoroughly mixed together. This compost remained seven days, and was then tossed over and left for eight days, at the end of which time, it was put upon the ground in a high state of fermentation. As a

load was spread, the harrow was passed immediately over it, to prevent the escape of the gases. The seed was drilled in on the 25th of June—harvested in the month of October.

Expenses of plowing sod,	\$4 00
Harrowing and light plowing, without moving sod,	3 00
Harrowing in manure,	1 00
Spreading manure,	2 00
Two pounds of seed, at 75 cents per pound,	1 50
Drilling in seed,	1 00
Horse and man with steel-toothed cultivator,	3 00
Thinning and hoeing seven days, at 75 cents a day,	5 25
Harvesting into cellar, 14 days,	10 00
Interest on land, valued at \$100 per acre,	14 00

1,800 bushels, at 12½ cents, \$225 00

Net profit, \$180 25

I have taken the low rate of one shilling per bushel, as it appears like a large story at that; but, in truth, I am receiving for 590 bushels, 18 cents, and retailing as many as I can spare at 25 cents per bushel, which would very much enlarge the amount.

VALENTINE H. HALLOCK.

—*American Agriculturist.*

For the Michigan Farmer.

DEEP PLOWING.

Editor Michigan Farmer: As the subject of deep plowing is much discussed at present, I send a few thoughts on the subject. Many who heretofore have plowed only from four to six inches deep, who never have raised above an average crop, who hearing of the success of some of our best farmers, which is the result of a judicious rotation of crops and deep plowing combined, have this season commenced plowing from eleven to twelve inches deep, expecting thereby largely to increase the yield, immediately. That many will be disappointed will not be surprising. Undoubtedly it will answer well on some soils to turn up five or six inches of subsoil at first, but it will not answer on opening land. Generally on such land we must go down gradually, say from one to two inches deeper at each plowing, until we arrive at the desired depth. The true philosophy of plowing is, to vary the depth according to the character of the subsoil. People generally are awakening on the subject of improvement in this part, and those who scratch only an inch or two of the surface earth are somewhat scattering. Still, there are some who have kept on year after year, for 12 or 15 years, plowing their land without once seeding down. I suppose they intend to wear out their land and then "emigrate." Yours with respect, S. M.

Eduational Department.

For the Michigan Farmer.

SOMETHING OUGHT TO BE DONE.

Mr. Editor:—In the midst of my perplexity and discouragement, as it is quite natural for the weak to ask the protection and advice of the strong, will you bring the power you possess, (or at least, are supposed by your subscribers, to possess,) to bear upon this subject, I will state my case, and I would fain believe that I am not alone in this predicament. Circumstances, as well as inclination, make me a farmer in name if not in deed—having received what is called a common school education; can read, write and cipher. I am not satisfied with that, although some of the oldest and best farmers, who raise as much “corn and wheat as their neighbors,” say it is enough. The extracts that have from time to time appeared in yours and other agricultural publications, upon the sciences of Geology, Botany, &c., have awakened in my mind an earnest desire to make their acquaintance. But where shall I go. I do not wish to read four of the best years of my life in the dirty pages of what are called the classics.* This may answer for D. D.’s and Dr’s of Law or Medicine. In all of our Institutions of Learning, there is not a single course of study calculated for farmers. Do not we toil enough? Have we not been taxed enough to build and sustain Institutions to educate the other classes? Can we not have a portion, say another of those wings that the State has built at Ann Arbor, for our express accommodation, Professor, Library, &c.? Mr. Editor, you may think me too fast, but sir, I feel my own ignorance about the every-day matters of life, and I ask, earnestly ask, cannot something be done for the better? Do thunder in the ears of our legislators until they will wake up to this matter.

Respectfully yours, &c.

ALEX. F. CORNING.

Glass Creek, Barry Co., July 2, 1851.

* Our friend will not have to read the Classics, we think, to learn Geology and Botany. We hope he will not be discouraged either, on account of early disadvantages. There are three books that will afford a vast amount of information, “Hitchcock’s Elementary Geology,” Price \$1.25; “Johnston’s Agricultural Chemistry,” Price \$1.25; and “Botany for Beginners,” Price 50 cents. If I can aid our correspondent or any one else, in procuring books, I shall be very happy to do so without charge.

C. BETTS.

Ladies’ Departmt.

For the Michigan Farmer.

EDUCATION OF CHILDREN—No. 4.

No mother, whatever may be her position in life has a right to excuse herself from training her children, to “act well their part,” in whatever sphere their lot may be cast. The wealthy, those who possess a competency, and the laboring class, each have their respective duties; the mothers of each have, if they choose, equally the power of impressing on the minds of their children, the happiness that results from the cheerful and ready performance of whatever duty may fall to their lot. I have seen a far better ordered family where the mother supported her children by washing, than in some cases where a fortune was yearly spent on a set of undisciplined, reckless children; and whose was the fault? The mother, in one case, realised and performed her duty; in the other she did not.

I have often heard mothers lamenting that their children displayed no aptitude, or in common parlance, were not handy at doing anything. Now, I am as far from believing that all possess the same tact, contrivance, genius, or whatever name you choose to give it, as that all have the same disposition, but I do believe that in by far the largest proportion of cases, if children, when young, were taught how best to apply what faculties they do possess, other faculties would be developed, and we should meet with fewer, incompetent housekeepers, miserable farmers, botching mechanics, and if you please, listless, good-for-nothing ladies and gentlemen, than are now met with. In this country of all others, children should be so educated as to turn their abilities to the best advantage. And how is this to be accomplished? Let mothers be aroused to a just sense of their duties, to a proper sense of “woman’s rights,” not the “right” to go to the polls and vote, or the “right” to be voted for, as a member of Congress or Assembly, but the “right” to be a true and faithful mother, and thereby influence as many votes for the right as she numbers sons. But this is a digression, and you will, of course, omit it if you please. To return to my subject. From infancy, foster in a child a spirit of generosity, a due respect and consideration for others, and next to this, a spirit of industry. Let their first years be passed as the little song says, “In book, or work, or healthful play.” Never let children acquire a habit of listless idleness, the habit of lounging about and doing nothing. I verily believe it is better for a child to be in mischief than be idle.

I have known mothers, who if they had anything to do, instead of setting about it cheerfully with a will to have it done, would put it off until it was no longer possible to defer it, and express as much dread, as if they were about to encounter some great misfortune. This is no example

for children; they are close observers, and early impressions are lasting. Again, some mothers make themselves slaves to their children, wishing thereby to make them happier; thinking they will soon enough have to encounter trials and vexations, and therefore they will let them enjoy themselves while young. Make them as happy as you can, but be assured, that an indulged, exacting child cannot be happy, nor as far as they have power, allow others to be happy. Do all that is necessary for their comfort and well being, that they cannot do for themselves, and then show them that true happiness consists in being useful, and contributing to the happiness of others.

If you wish your children to love, honor, and respect you, let them assist you in all that they are capable of doing; let them wait on you, and perform little kind offices for yourself and others, giving them due praise and credit, and the consciousness of having aided in making others happy, will add to their own enjoyment. The reader may say this is entering into small details, but these small things have a mighty power in forming the character of your child. D. M. B.

For the Michigan Farmer.

TO YOUNG LADIES AND MISSES AT HOME.—No. 3.

Ash Grove, July 5.

If our mothers have educated us properly, by the time we have passed our "teens" we are initiated into the various duties of the household. But we are not all taught to move about with the same elegance and ease. Whatever may be the deficiencies on the part of mothers, some of whom, have themselves neglected to observe the many little customs of society, as well as forgotten to teach them to their daughters it should be *our* aim to learn all that we can by experience and observation, both of which will teach us many lessons of the world we never should have found in books. My dear friends, we have indeed, no right to plod along, year after year, without having taken one step towards improvement and advancement in all that is good.

A mother may shake her head and say, "it is all well enough for learned people and rich folks" and go on drudging; and a father may tell of himself and all his sires who "got along well 'nough" through the world without a virtuous aim, but pray what better off has the world ever been that they have lived? or what merit will be attributed to us if our only object be to eat, to drink and be clothed?

But we have nobler ends in life. Have not we a desire to look into and make our own hearts better; have not we the ignorant to educate, the fallen to raise, the poorer-than-we to assist? Indeed, have we not society itself looking to us for the advancement of morality and reform? In short, while we look on the outer world, we have our inner world—our homes to improve and make happier.

We are social beings, and if we wish to appear well in whatever station of life, we will take the proper measures, summed up, in learning to entertain and be entertained. To do this with elegance and grace, we will seize upon every opportunity for improvement in mind and manners. The cultivation of good taste is the foundation of elegance in manners; the one follows the other. But the cultivation of the *mind* promotes either, yet is not the work of a moment. Let us, therefore begin to discipline our minds for the work before us, and those who have never before made the attempt, will find that while every advancement betters our homes, there comes also a train of pleasing emotions, which we shall be enabled to recall for our future benefit. KATE R.***

For the Michigan Farmer.
FASHION.

Being seriously impressed with the inconveniences and mischievous tendencies arising from the present mode of dress, destructive alike of health and comfort, and feeling the great responsibility resting upon all, especially mothers, I have taken advantage of the invitation given in the Michigan Farmer, and will pen a few of the many thoughts that press upon my mind in relation to this important subject. When we view the vast amount of sickness, suffering and premature death, and know that a large share has been the reward of disobedience to the laws of our being, and a devoted adherence to the demands of fashion, we are led to inquire how long O women of the nineteenth century, will you permit yourselves to be crushed by the Juggernaut of Fashion, worse than that of the Hindoo! How long enslave the mind, that priceless gem bestowed upon us by the great Father of all, by bowing supinely to the tyrannical dictates of Fashion? I can answer for one, that I will no longer bow at its shrine or obey its false mandates. It is time we should awake; and although we may be but the possessor of only the one talent, yet if we do our duty we shall have our reward. We have long wished for a reform in our style of dress, and too long have waited for some bright star to take the lead.

While a reform is earnestly called for, we should be careful about going to extremes. We would suggest the propriety of calling a meeting in every town to discuss the improprieties of our present mode of dress, and devise a style that will be more conducive to health, more convenient and comfortable. And further, that we report through the Michigan Farmer our success, that all may be profited thereby. We heartily concur with Frances, and will do all in our power to forward this great improvement. Notices are already posted in this town, calling a meeting on the twelfth of July. ELIZABETH.*

* We hope the Ladies will go ahead in this reform until there is not a street-sweeper left unshortened. We will do all in our power to aid them.—C. B.

MICHIGAN FARMER.

Warren Isham, Editor.

DETROIT, AUGUST, 1851.

Notice.—Any person having a small flock of Merino or good grade sheep, in this vicinity, to dispose of at a moderate price, would do well to address a line to this office.

MANURES.

In our last number we laid before our readers a few of the principles on which manures are efficacious in causing plants to grow. We propose on the present occasion, to offer some *practical* remarks on the saving of manures, a subject which, it is feared, is greatly neglected or misunderstood by many of our farmers. Last month we showed that the benefits which plants derive from such applications, depend upon the absorbing of certain gases or mineral substances, and the latter must be in such a condition as to be readily soluble in water. At present we shall confine ourselves to the subject of barn yard manure; not only because we principally depend upon it; but because "when it is derived from good feeding supplied to animals with suitable and abundant litter, it affords all the principles necessary to the development of plants; such manure contains at once all the usual elements which enter into the organization of plants, and all the mineral substances which are distributed throughout their tissues; in fact, carbon, azote, hydrogen and oxygen are found therein united with the phosphates, sulphates, chlorides, &c."—*Boussingault.*

We lay it down then as a fixed fact, that *dung* is good or bad, useful or useless, just in proportion as it contains a variety of substances, some of them easily let loose, and thus rapidly rising into the air, and others, not rising into the air, but as easily washed away by the rain, in rotting. We may take the dung just pitched out of the stall of the corn fed ox, composed of everything that can be useful to a plant, and in two years time we can present it to you no better or stronger than the brown earth you find in a rotten stump; and this merely by exposing it to the burning sun in summer, which makes it ferment like a barrel of beer, and to the drenching rains and snows of winter, which wash it clean of everything but the woody substance called *humus*. But how is it with many of our farmers—industrious and hard working men—who value their manure—with the sweat of their brows haul and spread it diligently? Let us take a walk to the barn of our next neighbor. Up early and resting late, he toils the year round; he is not without intelligence or

knowledge, and his chief pride, as it is his greatest pleasure, is to point out to a visitor his fine wheat or luxuriant corn. He thoroughly understands and carefully practices all improved modes of cultivation, and though he is blessed with a rich and long-suffering soil, he would refuse to sell a load of straw for fear he should not have manure enough. You see that he has not spared expense in his barnyard arrangements; a fine dry yard, with its board fence, contains a spacious barn flanked with sheds at either side, and his sheep and cattle in winter need not grumble for lack of shelter. But see that pile of dry, discolored straw scattered over his yard. Is that his manure basking in the sun, half crackling, half sinking under foot, without smell, and only damp at the bottom?

He thrashed immediately after harvest, stacked the straw in front of the door, while hogs, calves, horses and horned cattle, pull, eat and trample as they like, *do all but make manure of it.* It is true that it is now considerably rotten and broken up; that where wet it looks black, and it is easier carted than at first, but for all practical purposes it is not a whit better than when first cut and brought from the field. It was then dry straw, it is now nothing more than wet straw, with this exception, that where it is rotted, the carbonic acid gas, and the ammonia, and the sulphur, and the phosphorus, have bid farewell to the *humus*, gone up to the higher regions of the air, and flowed away with each shower of rain. Now this man deserves commiseration. All he wants is proper instruction. He has carefully made use of all the knowledge he could acquire, but he has never been taught chemistry, and for years he has spent his labor *almost* (we will not say *quite*,) uselessly, where a little teaching, with hardly any more exertion, would yearly have enriched him, and rendered him a benefactor to his country. There can be no doubt that, practically, manure should be more or less rotted, according to the crop, before applying it; and that in this rotting, some gases, even under the best of management, will escape. This is a necessary evil, but by proper management the loss can be rendered very small indeed, and the inorganic elements need not be lost at all. To what extent manure should rot is a disputed question. In the Duchy of Nassau, in Germany, where the most extraordinary pains are taken to collect manure, the farmers are in the habit of plowing it in quite unrotted, and thus they gain the benefit of all it contains. Under these circumstances there is a larger bulk, and therefore more hauling is requisite, but they consider that they are well repaid. We, ourselves, have found that cow and sheep dung, *entirely protected from the wet*, will sufficiently rot even corn-stalks between February and August. At the risk of being tedious, and to put the subject in a still clearer light, we will state the substances which analysis shows are contained in

good barn-yard dung, so that the reader may see what is lost by exposure and washing, first calling his attention to the dung dropped on a pasture field, after being exposed to the weather to leach and dry, instead of being mixed with the earth, and how little effect is produced by such dung if it be removed to a new spot.

Farm-yard manure—a mixture of vegetable and animal substances—contains, according to Boussingault.

Carbon,	74	}
Hydrogen,	9	
Oxygen,	53	
Nitrogen,	4	
Inorganic matter,	67	
Water,	793	

1000

The inorganic matter, according to Richardson, consists of potash, soda, lime, magnesia, sulphuric acid, chlorine, *soluble* silica, phosphate of lime, phosphate of magnesia, phosphate of iron, phosphate of manganese, phosphate of alumina, carbonate of lime, carbonate of magnesia, sand and alkali. A strange list certainly. More like a druggist's advertisement, than the parts of such a homely looking stuff as farm-yard dung.

But so it is, and it is to these things, all soluble in water, except the sand, that manure owes what good it can confer upon us.

There is potash, or saleratus and soda. Your wife knows them well, and how they readily melt even with the wet contained in the air, the chlorine, combined with soda as it generally is, is *common salt*, and how foolish you would feel at leaving your salt barrel open to be drenched by a thunder storm. And so it is with the rest. Every shower of rain that falls on your manure carries off something that is valuable, till at last, if very much rotted, you might as well cast on the same amount of rotten wood.

For some years we have taken great pains to make good serviceable manure at the smallest expense, and we think that we have gained all that is necessary—that is, dryness, preventing the escape of the gasses, and sufficient rottenness, with very little trouble. We have a cattle stable inside the barn with a wooden floor, and at the door is a shed, the upper part of which contains hay. Such a shed, say one costing \$70 to \$80, and 40 x 20 feet in size, will, we are convinced, pay for itself in the saving of hay alone, in 3 years. In this stable our cattle are tied up from December till there is good pasture in the Spring, they being let out in the yard from noon to 5 p. m.—The stalls are kept well littered with the refuse straw and corn stalks from their troughs, which drink up the wet, and the dung is daily thrown under the shed with a wheelbarrow, being equally spread. The young cattle and such as are not housed, are likewise fed and sleep under the shed. In this way we collect as much manure in one winter as we used to do in three, when

the cattle wandered over a smaller yard, while in quality there is no comparison. When carted it is a rich, black, uniform mass, smelling powerfully; and at no time, owing to the treading of the cattle, does any gas of importance escape. One load of such dung is worth half a dozen of that which has been exposed, and the extra time required to wheel it under the shed is not ten minutes a day. Owing to the amount of urine contained in the straw, it is sufficiently rotted for corn in the Spring, and thoroughly rotted by fall. We have nearly the same arrangement for our sheep. We have three yards, each with its hay shed, and the racks are placed around them inside, while the sheep have the run of certain fields during a part of the day. A very large amount of excellent manure is thus saved. The sheep generally sleep under the sheds, and the hay which they refuse to eat thus daily goes to add to the heap. Were it merely for the sake of the manure, we should press upon every farmer to build such sheds; but when we consider that in them hay can be put away much greener than into a stack or barn, thus saving trouble and risk from weather, that with shelter and the heat of the manure at night, cattle prosper on less food, and that the hay is not damaged by exposure to the weather, as it always is more or less when stacked, the real extravagance is not the building, but the going without them.

In making these remarks we are well aware that there is no novelty in them; that many of our farmers have already practiced the same, and others are acquainted with the circumstances: but we also know that a very great number pay no attention to the subject, that they are not aware what constitutes the value of manure, and that if they can be induced to practice this plan, they will save thousands and thousands of dollars annually in the shape of improved crops—thousands of dollars that now

"Are flung into the brook that travels near."
both to the State and to themselves.

We conclude in the words of Mons. Boussingault:

"Any expense incurred in improving this vital department of the farm, (saving manure,) is soon repaid beyond all proportion to the outlay. The industry and the intelligence possessed by the farmer, may, indeed, almost be judged of at a glance, by the care he bestows on his dunghill. It is truly a deplorable thing to witness the neglect which causes the vast loss and destruction of manure over a great part of these countries. The dunghill is often arranged as if it were a matter of moment that it should be exposed to the water collected from every roof in the vicinity, as if the business were to take advantage of every shower of rain to wash and cleanse it from all it contains that is really valuable. The main secret of the admirable and successful husbandry of French Flanders may perhaps be in the extreme care that is taken in that country, to col-

lect everything that can contribute to the fertility of the soil. Our agricultural societies would confer one of the greatest services on the community if they would encourage, by every means at their command, economy of manure. Premiums awarded to those farmers who should preserve their dunghills in the most rational and advantageous manner, would prove of more real service than premiums in many other and more popular directions.

C. F.

LIGHTNING RODS.

We have often wondered that farmers and others, after having put upon their premises substantial buildings, did not go a little farther, and protect them with proper lightning rods. Hundreds, perhaps thousands of barns, filled with grain, are burned every year in this country, by lightning, and the hard earnings of years are gone in a moment. In the short period of our experience, we have known of two valuable barns, filled with grain and hay, consumed by having been struck by lightning. One was owned by John Houk, of Redford, in this county, the other by Judge Sturgis, of St. Jo. county.—The latter had just been erected and partly filled, and cost over \$400.

Our attention was called to this subject, a few days since, by a note from Rev. Charles Fox.—He writes: "I had an extraordinary escape last night. My hay-shed, connected with my barn, was struck with lightning; touched the roof, tore off a few boards, descended to a padlock on the chicken-house door, at right-angles, threw that we can't tell where, shattered another board and entered the ground. The shed was full of old hay, and how it escaped fire I cannot imagine.—Not a chicken was killed, though the house was full.

"The most extraordinary circumstance is, that the point struck was the very lowest of all the buildings. I shall get a lightning-rod instanter."

The proper construction of lightning-rods is a matter which perhaps all do not understand. We saw in Branch county, in what is known there as the Dutch Settlement, two rods, on different farms, attached to tall tamarack poles placed beside the barns, and the rods terminating three or four feet from the ground. They would be about as valuable, thus made, for conductors of the electric current, as tow strings. We give the following, from Olmstead's School Philosophy:—C. B.

"Lightning rods are at present usually constructed of wrought iron, about three-fourths of an inch in diameter. The parts may be made separate, but when the rod is in its place, they should be screwed together so as to fit closely

and to make a continuous surface, since the fluid experiences much resistance in passing through links and other interrupted joints. At the bottom, the rod should separate into two or three branches, going off in a direction from the building. The depth to which it enters the earth should not be less than five feet; but the necessary depth will depend somewhat on the nature of the soil; wet soils require a less and dry soils a greater depth. In dry sand it must not be less than ten feet, and in such situations it would be better still to connect, by a convenient conducting communication, the lower end of the rod with a well or spring of water.

"The rod should ascend above the ridge of the building, to a height determined by the following principle: That it will protect a space in every direction from it, whose radius is equal to twice its height.* It is best, when practicable, to attach it to the chimney, which needs peculiar protection, both on account of its prominence, and because the products of combustion, smoke, watery-vapor, &c., are conductors of electricity. For a similar reason, the kitchen chimney, being the one in which fire is kept during the season of thunder-storms, requires to be especially protected. The rod is terminated above in three forks, each of which ends in a sharp point. As these points are liable to have their conducting power impaired by rust, they are protected from corrosion by being covered with gold leaf, or they may be made of solid silver or platina.

"Black paint, being made of charcoal, forms a better coating for the rod than other paints, the bases of which are worse conductors. The rod may be attached to the building by wooden stays. Iron stays are sometimes employed, and in most cases they would be safe, since electricity pursues the most direct route; but in case of an extraordinary charge, there is danger that it will divide itself, a part passing into the building through the bolt, especially if this terminates in a point. When the foregoing rules are observed, the most entire confidence may be reposed in this method of securing safety in thunder-storms."

* That is, it will protect a space each way from it, twice the distance of its height above the ridge of the house.—C.B.

New Insect in Wheat.—We received, a few days ago, a few heads of wheat containing within the cap and next the berry, an insect in the chrysalis state. We showed it to Dr. Slater of Ann Arbor, who pronounced it a two winged insect of the genus *cecidomyia tritici*, but its habits he could not at the moment designate.

It was sent from Brownstown. C. B.

Error.—In Mr. McAllister's "PROPOSITION," in the last No., page 104, for 1841, read 1851.

MANURE.

As an extraordinary instance of the value of science applied to agriculture, the American Farmer relates the following anecdote:

"The Hon. Reverdy Johnson purchased, in 1849, a small farm near Baltimore, in the last stage of impoverishment. Such was its reduced condition, that its last crop of corn was not more than one peck to the acre. He states that all the vegetable matter growing on the 200 acres of cleared land, including briars, sassafras, and other bushes, if carefully collected, would not have been sufficient for the manufacture of one four-horse wagon-load of manure. He applied to Dr. David Stewart, of Baltimore, an able chemist, who rode out to the farm and procured specimens of the soil, which he carefully analyzed.—He found that it contained an abundance of lime, potash, magnesia, iron, and organic matter, duly mixed with alumina and sand. One element only of a fertile soil was wanting, *phosphoric acid*;* and of this there was no trace. He recommended an application to the soil of the bi-phosphate of lime, a preparation of bones, as the best mode of supplying the deficient element.—The remedy was given at the mere expense of \$10 per acre. It was the one thing needful.—Health was restored to the exhausted patient, and the grateful soil yielded last year, twenty-nine bushels of wheat per acre. Nothing else was applied, indeed nothing else was wanting. Here was a beautiful triumph of science. There is no doubt about the facts. The experiment came under our observation, and attracted the attention of hundreds. It was detailed to the writer by Mr. Johnson himself, and various others worthy of perfect reliance."

One such fact as this is worth all the jeers and scoffs which a whole generation of anti-book farmers could emit, try as they would. It is true philosophy—the proposition given—to renew a barren soil; and instead of wasting tons of manure which was not wanting, the supply of one single element, pointed out by chemistry, accomplishes the feat. Barn-yard manure in vast quantity would have done the same, but at what a vast difference of labor and cost! while all the other elements it contained would virtually have been thrown away.—C. F.

* This is the element which, in combination with lime, forms bones, brain, &c., and enters largely into all valuable plants, especially wheat; while, of all others, it is least plentiful in the soil. Large beds of it are found in New York.

Reports from all sections say that the wheat crop never looked more promising. The rains we think were a little too late to injure it, and there is no doubt a great crop will be harvested.

SCRAPS FROM THE PATENT OFFICE REPORT—1850.

NUMBER II.

Improvement.—All cultivated plants, and all domestic animals, not less than the soil, are susceptible of indefinite and very valuable improvement. Every advance of this kind virtually increases the productive power of the earth, and of manual labor. But the most important improvement of all is to improve the farmer himself, that he may be able to read and understand the immutable laws of nature and uniformly obey the same, as they exist in the mineral, vegetable and animal kingdoms. *His profession is a most intellectual one*, and there is no good reason why the cultivator of American soil should not be the most thoroughly educated business man in the world. Great improvements are attainable; and if Congress and STATE LEGISLATURES will render a little assistance in the way of collecting, annually, reliable statistics, that we may go to the people with facts and figures, the truth of which none can gainsay, one hundred per cent. can soon be added to the productive industry of five millions of farm laborers. Here is an unemployed power of production in American soil and muscle, and above all in American mind, which ought no longer to be neglected. Although the science of human progress is in its infancy, yet the little that has been achieved within the last 30 years, and mainly by the study of natural phenomena and the application of the knowledge so acquired to all the purposes of civilized life, promises a ten-fold larger harvest, when science shall direct the culture and economy of every farm in the Republic. *Few are aware how much honest hard work is worse than thrown away by its unwise expenditure.*

The atmosphere, or air, has a mean depth of some 45 miles. It is composed of two gases called *nitrogen* and *oxygen*; in proportion of 20.8 oxygen, and 79.2 nitrogen. From 2 to 5 parts of carbonic acid exist in 10,000 of air. The proportion of ammonia in the air is about one part in two millions. Gaseous compounds of phosphorus, chlorine, and sulphur, are constantly discharged from decaying animal and vegetable substances into the atmosphere.

Forests.—Humboldt remarks: "In felling trees which cover the crowns and slopes of mountains, men in all climates seem to be bringing on to future generations two calamities at once—a want of fuel, and a scarcity of water." The waste of valuable timber in the United States, to say nothing of fire-wood, will hardly begin to be

appreciated until our population reaches 50 millions, (say 30 to 40 years hence.) Then the folly and short-sightedness of this age will meet with a degree of censure and reproach not pleasant to contemplate.

Bran.—The following are the results of an analysis of bran by M. Millen:

Starch, dextrine and sugar,	53.00
Sugar of Liquorice,	1.00
Gluten,	14.90
Fatty matter,	3.60
Woody matter,	9.70
Salts,	.50
Water,	13.90
Incrusting matter, and aromatic principles,	3.40
	100.00

The conclusion to be drawn from this analysis is, that bran is an alimentary substance. If it contains 6 per cent. more woody matter than the rough flour, it has also more gluten, double that of fatty matter, besides two aromatic principles which have the perfume of honey, and both of which are wanting in the fine flour. Thus, by bolting, wheat is impoverished in its most valuable principles, merely to remove a few hundredths of woody matter. The economical suggestion which springs from these views is, that the bran and coarse flour should be reground, and then mixed with the fine flour. Millen states that he has ascertained, by repeated experiments, that bread thus made is of superior quality, easily worked, and not subject to the inconvenience of bread manufactured from the rough flour, such as is made in some places, and especially in Belgium.

Professor Danberry says: "The great importance attached to having bread perfectly white is a prejudice which leads to the rejection of a very wholesome part of the food, and one which, tho' not digestible alone, is sufficiently so in that state of admixture with the flour in which nature has prepared it for our use. According to the experiments of Magendie, animals fed upon fine flour died in a few weeks, whilst they thrived upon the whole meal bread." *Brown bread*, therefore, should be adopted not merely on a principle of economy, but also as providing more of those ingredients which are perhaps deficient in the fine parts of flour. There can, therefore, be little doubt that the removal of the bran is a serious injury to the flour.

Analysis of Superfine Flour from Michigan Wheat, 2 samples.

Water,	13.25	12.25
Gluten and Albumen,	11.10	10.00
Starch,	66.74	67.70
Glucose, dextrine, &c.,	80	8.75
Bran,	85	75

Sheep Husbandry is diminishing in Vermont in consequence of the low prices of wool under our present tariff, which fosters a foreign compe-

tition in all woollen fabrics, and in the production of wool. This once great source of wealth to Vermont is destined to be annihilated, and we are again to become dependant upon *foreign workshops* for our clothing, one of the essential necessities of life. Vermont once numbered nearly one and a half millions of sheep, which have dwindled down probably to about half a million, averaging about 3 pounds wool per head, ranging in quality from half to full blood Merino. Cost of keeping per annum, \$1 50 per head.

In New Hampshire many of the farmers are discouraged, and getting rid of their sheep as best they can. The cause of this is that cattle-breeding is found much more profitable than raising sheep. The cost of keeping sheep is about \$1 a head per annum, and from 2½ to 3 lbs. is the average clip.

In Massachusetts the number of sheep has probably diminished for some years past. The introduction of Saxony sheep and crossing them with Merinos has increased the fineness of the wool, but has rendered the sheep more feeble and more subject to diseases, and has diminished the average weight of the fleece.

In Chautauque and Delaware Counties, New York, sheep are giving way to raising of stock. Mr. Ruff, of Xenia, Ohio, says: "This branch of husbandry, when considered in its most favorable light, affords but a very small profit to the farmer." But Mr. Coats, of Allen Co., Ohio, says: "I consider this a profitable branch of business in the western parts of Ohio; and so far as my knowledge extends, it is increasing in popularity."

In Illinois the business of wool-growing is improving. In Wisconsin it is becoming a very important branch of farming. Many flocks of fine Saxony sheep have been introduced. In Alabama and Texas the business appears to be languishing. Notwithstanding all this, the supply of wool grown in this country is far below the demand for home consumption. About 18 millions of pounds of wool were imported in 1848 to supply the deficiency. Mr. T. C. Peters, of Buffalo, thus writes: "The condition of this branch of farming is prosperous. Wool has not, it is true, brought as good prices for the last two years as it has years before; and owing to peculiar circumstances, not so good in proportion as other farm products. But the depression will only be temporary: for already has the price of grain and of the products of the dairy fallen to that point that renders wool growing now, and will for some years to come, the most profitable, as well as the most reliable branch of farming. The uncertainty of the wheat crop in many of the Western States will drive the farmers to wool growing much sooner than they would otherwise engage in it. And they will find that money can be made very easily, and with a certainty they have never known in grain culture. The transportation of bulky articles like grain, which are of little value compared with their cost of

carriage, will always commend wool growing to the farmer who lives at a distance from market. The cost of transporting a bushel of wheat from the Ohio or Mississippi River to this market would average 12 cents under the most favorable circumstances, and would sell on an average for about 70 cents; while the cost of transporting a pound of wool from any point west to this depot would not exceed three-fourths of a cent, and will bring on the average 26 cents. When circumstances are favorable to the rapid increase of sheep, as the high price of wool, and low price of grain and dairy products, they increase at the rate of about 25 per cent. in 4 years."

In 1840, there were 19,311,374 sheep in the United States, and in 1845, 6,443,855 in the State of New York alone.—C. F.

ACKNOWLEDGEMENTS.

We have received a list of Premiums of the Oakland County Agricultural Society, to be awarded at their Fair, which will be held on the 2nd Wednesday and Thursday in October next, at what place we are not informed. They give premiums on the best managed Farms; Short Horn, Devon and Native breeds of Cattle; Horses, Sheep, Swine, Farming Implements Plowing, Butter, Cheese, Domestic Manufactures, Needle, Shell and Wax Work, Painting and Drawings, Flowers, Fruit, Vegetables, Grain, Field Crops, Poultry, &c. They expend about \$533 in premiums. Why cannot some other Counties, quite as rich, and quite as favorably situated every way, do as well?—C. B.

COMMUNICATIONS from N. Nickerson, A. F. Corning, Caloric, D. B. Kinney, J. W. C., D. C. McVean, E. Rockefellow, A. Minor, and Wolverine, are received, which will have to lay over for the next No.

POSTAGE ON THE FARMER FROM JULY 1st, 1851.

Under 50 miles, 5 cents a year.
Over 50 and under 300, 10 cents a year.
Over 300 and under 1000, 15 do
Over 1000 and under 2000, 20 do
Over 2000 and under 3000, 25 do

The Union-School Miscellany, published at Adrian, semi-monthly. One dollar a year in advance.

Rev. John Pierpont, writing upon the Telegraph, concludes:—

A hero chieftain laying down his pen,
Closes his eyes in Washington at ten,
The lightning courier leaps along the line,
And at St. Louis tells the tale at nine;
Halting a thousand miles from whence he parted,
And getting there an hour before he started.

AGRICULTURAL GEOLOGY—No. 8.

Oxygen, calcium, carbon, sulphur, phosphorus, nitrogen, hydrogen, chlorine and flourine, are ultimate principles of matter—simple elements, never yet decomposed or rendered more simple. They all enter into lime formations. Oxygen and calcium are the elements of quick-lime.—Oxygen and carbon form carbonic acid. The oxide of calcium combined with carbonic acid, forms the carbonate of lime—the material of extensive mountain ranges, of limestone in all its varieties of texture, color and other properties.—Coral formations, extending many thousand miles in different parts of the earth, are the carbonate of lime, and used for the ordinary purposes of that mineral. Marbles, existing in several hundred varieties, are also carbonates of lime. So is chalk. So are several hundred crystalline forms of this important element of our globe. These crystals, though presented under two or three hundred different shapes, can all be reduced to one shape, shown in rhomboic spar, which if broken into fragments smaller than the head of a pin, presents in every fragment a rhomboic or diamond-shaped crystal.

All the carbonates of lime are composed of three simple elements or ultimate principles, viz: Oxygen, the great supporter of combustion—carbon, the principal element of coal in all its varieties—whether mineral or vegetable, of course the most important combustible upon our globe; and calcium, a metal also combustible. The oxygen first exists in two combinations, viz: with carbon and calcium; these two compounds are also combined, of course still more compounded, producing the most abundant carbonate, and one of the most abundant rocks and useful minerals upon our globe.

Next to carbonates of lime, the sulphates are the most abundant and useful of all lime formations. These are also composed of three elements, and the same as in the carbonates, excepting that sulphur takes the place of carbon. The oxygen and sulphur form sulphuric acid; that, combining with the oxygen of calcium, gives the sulphate of lime. This abundant deposit of lime formations also presents very numerous appearances. All the sulphates of lime, or nearly so, give to the thumb nail. The carbonates yield to the point of a knife, but not to the thumb nail.

The carbonates effervesce with any strong acid even vinegar; which effervescence shows what is called life in an eye-stone, which is the mouth-piece of certain shells; all shells being the carbonate of lime. Sulphuric acid has a stronger hold in its various combinations than most other acids, and hence not displaced either by carbonic, muriatic or nitric acids. Consequently the sulphate of lime does not, like the carbonate, effervesce with any other acid. The thumb-nail, the point of a knife, and common acid, are hence sufficient tests for ordinary purposes, to distinguish the carbonates of lime from sulphates. The sulphate,

like the carbonate, appears in many beautiful crystalline forms.

Experiment. By collecting such varieties of these two lime formations as any one can easily procure, and arranging them upon the mantel piece or in a case, a beautiful calcareous cabinet will be formed. These specimens, tested by each other, by the thumb-nail, the point of a knife, a piece of quartz or glass, any acid, even vinegar, also by the sight, feel and taste, will furnish much rich instruction and delightful amusement to the possessor. If any one doubts it let him try the experiment. If he has no doubt he will try it of course.—*Holbrook.*

A LEAF FROM MY DIARY.

July 8, 1851.

At half-past six, A. M., started on a tour of observation to Macomb County. I took the plank-road for Mt. Clemens, having passed on about 2 miles, my attention was attracted to a small farm, that told in terms not to be mistaken, that the owner was a person of skill, enterprise and taste. The grounds were skillfully laid out, the vegetable and flower gardens were free from weeds, while the vegetables and flowers were growing most luxuriantly. Upon inquiry I found the owner of this beautiful spot was our enterprising townsman, H. R. Johnson, Esq., proprietor of "Johnson's Hotel." In order to have a full supply of pure milk, fresh butter, and the best of vegetables for his well-patronized Hotel, Mr. J. purchased a few acres of ground, and here he keeps his cows, raises his own vegetables, and adorns the grounds with flowers.

A little farther on, I noticed in the fields an abundance of the *Lilium Superbum*, and could not resist the temptation to stop and pluck a handful. The *Lilium Superbum*, like many of our indigenous plants, well repays one for the trouble of cultivation. I have grown them with stems six feet high, bearing immense pyramid-racemes of recurved flowers.

My next stopping place was at the farm of my old friend, King, formerly a first rate carpenter, now a first rate farmer.

At Mt. Clemens I had a short talk with Mr. Traverse, of the Macomb County Nursery, upon the Horticultural prospects in that county. I also had an interview with Mr. C. who thinks the stave business as carried on at that point will be detrimental to the country.

Left Mt. Clemens at one, P. M., and arrived at the pleasantly situated and thriving village of Romeo, forty miles from Detroit, over a plank road, at 4 o'clock. June & Co.'s Circus had located at Romeo for the day, consequently the village was crowded with people, horses, carriages, wagons, &c. I drove up to one of the commodious hotels with the intention of stopping there all night, but the landlord met me at the door saying he was very sorry he could not ac-

commodate me, but his house was full from cellar to garret. A gentleman, Mr. G., standing by and hearing the conversation, although at the time a stranger to me, but whose soul was filled with genuine western hospitality, says, "drive to my house, put your horses in my barn and your ladies and yourself into my house, and be at home." Of course I accepted the invitation.—After tea I called upon my friend, Mr. Dickenson, who immediately placed an embargo upon me, and said I must stop with him, and not think of leaving Romeo until I had visited a good portion of the farms in the vicinity.

July 9th.

At 5 o'clock, A. M., took a stroll about the village of Romeo. From the appearance of this village, I should judge that speculation had not been so rife here as at some other points in our State, for none of those monstrous, unfinished, dilapidated, wooden house, store, church and mill frames, put up in 1836, and now going to decay present themselves to the eye; but the well-built, and comfortable dwellings, with their gardens attached speak of thrift, taste and prosperity. After breakfast Mr. Dickenson and myself called upon D. C. Walker, Esq. whose taste for horticultural pursuits is well known; after a pleasant chat and stroll about his premises, we proceeded to the farm of Mr. Dickenson. First we noticed the crops, which were very fine; grass heavy, corn stout, deep green and growing rapidly. Nearly the whole farm is well drained, at an expense of about \$500. The convenience for sheep are admirably arranged. Standing in the sheep pasture is a large building, the lower story which contains mangers and feeding racks. To this portion of the building the sheep have free access at all times. A portion of the second story is also occupied as a feeding room, with feed boxes arranged against the walls. In the centre of this room stands a box or closet about three feet square, a door making one of its sides. This box passes through and rises about three feet above the floor of the loft above. The upper loft contains the hay. When Mr. D. wishes to feed his sheep in the second story of this building, he passes from the shed or lower story, by way of an inclined plane into the feeding room, and that the sheep may not trouble him while preparing their food, he closes the door at the top of the plane, thus shutting out the sheep until he is ready to admit them. He then goes into the hay loft and fills the closet—that rises from the feeding room—with hay; he then goes to the feeding room, opens the door of the closet, takes out as much hay as is necessary and distributes it into the feed boxes, shuts his closet door, then opens the door at the head of the inclined plane and lets the sheep in to feed and walks out himself, leaving the door open that the sheep may run in and out as they please. Adjoining the feeding room is the shearing room, with two tables for shearing upon,

places of deposit for the fleeces and every thing arranged in the best order.

Mr. D. has a fine flock of Merinos : he intends exhibiting some of them at the State Agricultural Society's Fair, next September.

More anon.

J. C. HOLMES.

From the Wool-Grower.

REVIEW OF THE WOOL MARKET FOR JUNE, 1851.

The past month has been one of peculiar excitement in the wool market in particular localities, whilst in other there has been but little, if any activity shown. The excitement commenced early in the winter in Ohio, and has raged with varied degrees of intensity in that region ever since. The next field of its operation was in Michigan; and if we are to believe reports, higher prices have been paid here than in Ohio, in proportion to the value of the wool. From Michigan it travelled over the other states next until there was no village or hamlet that had not its wool buyer. It reached Western New York about the first of the month.

Since then the wool buyers have been very plenty, and the competition among them very keen. The result has been pretty uniform, everywhere; prices have been stimulated to a point much beyond the expectations of either the farmer or the buyer. The question has not been, what is the wool worth? but, what will you take? And as a consequence, very ordinary wool has brought as high and indeed a much higher price than the best clip. Wool has generally been sold at about 15 per cent higher than last year, and that too in face of constantly grumbling manufacturers; who then said they were losing money, and could not live. But they do live, and keep their wheels in motion, and that too when cloths do not advance. The inference is, that the profits of the manufacturers are enormously large, and the farmers will yet get still higher and better prices for their wool. When the mills stop, we shall begin to think they are in earnest—not before.

It will be seen that an attempt is made to depress the market by trumping up a great story about certain manufacturers being compelled by high prices, to send abroad for wool. If they really mean to do so, why make so much noise about it. The truth is, if the revision law be honestly administered, wool cannot well be imported, that will materially affect the fair price of American staple. Australian cannot be bought in London at less than 28 to 30c. per lb. The duty if properly entered, would be from 8 to 9c. per lb., which would bring the wool to the manufacturers at over 42c. As this is the only wool that can come in competition with our better sorts, it will give the farmer some notion of what kind of competition he has to encounter; when by fraudulent invoice and other means, the same wool is entered, paying only a nominal duty. We

believe now as we have always believed, that in the end, the farmer gains nothing by having prices stimulated to a higher point than the market will bear. For there must be a reaction, and that always leaves prices as much too low as they were too high; and more is lost by the reaction, than gained by the high prices. The majority of farmers are not wise in the disposition of their property, for they often hold for higher prices, when they are offered the full value of the article, and in the end sell for less than they could have taken. At other times, and especially in wool, they sell at very much less than they ought; because not knowing the value of their wool, they fall an easy prey to the first shark that comes along, and can humbug them with some terrible story, about factories stopping, cloths falling, and all that sort of thing.

Our opinion to what should be the fair price of wool, is not altered by the high prices in our locality or the low one in another, nor shall we alter our quotations from our last report. We then gave the fair market value, and when the year is up, we are willing to stand by these figures, and let our reputation rest upon them—We still say to those who have not sold, that if they can get within our range of prices, they will do well to sell, but not to take less. We do not expect them to refuse more if they can get it. And we hope if there should be any excitement, and wool should go up, that they will take advantage and sell.

In the English market there has been a decline of full 2 cents per lb. from winter prices, and a dull demand.

N. Y. Prices.	Boston Prices.
American Saxony, Fleece per lb.	46a50c. 47a51c
American Full Blood Merino,	42a45 43a48
American $\frac{1}{2}$ and $\frac{3}{4}$ Merino,	40a42 41a44
American Native and $\frac{1}{4}$ Merino,	36a39 37a41
Superfine, Pulled, Country,	40a42 40a44
No. 1 Pulled Country,	34a36 35a38
Superfine, Pulled, City,	37a39 —a

The following was unavoidably crowded from its place in the Ladies' Department:

Dear Ribbon-cleaning Kate:—Did you ever try cleaning ribbons and fine worsted or silk-stuffs with yolk of eggs diluted with equal quantity of cold soft water, and then rinse well with soft water; if not, please try it, and you will find it will not injure the most delicate color.

I like your way of ironing them, also your plan of cleaning kid gloves, but I like eggs for silk ones. Your affectionate Cousin,

SALLY ANN.

P. S.—Let us all thank Frances of Ray for her sensible letter, and try to follow her example.

Horticultural.

CULTURE OF FRUIT.

THE STRAWBERRY.

We have essayed in vain to find a reason for the neglect among farmers, to cultivate this most delicious of all fruits. Take them the size of your thumb, red as scarlet, and almost bursting with rich, luscious juice, and serve them with a little sweet cream and sugar. O how delicious! But this is not the best part of it. See the smiling faces as they gather round the well filled table; no harshness, no discord and strife there; but as the glistening eyes glance around upon the loaded sauce-plates, forming a scarlet flowered border, each heart glows with delight, and the unconscious smile plays upon every lip.

A great deal has been written within the last six years on Strawberry culture, but the mass of readers, we think, have been but little benefitted. We propose to give a few simple directions for cultivation, with the names of a few kinds that are best, in our judgment for common garden culture. And as nearly all will commence on a small scale, each one can afford to prepare his bed in a most thorough manner.

This should be done by deeply trenching the ground, and mixing to the entire depth a heavy coat of manure. Good crops can be raised on common garden ground, but when not trenched, you are not so certain of a crop, nor is it ever so heavy. The soil cannot well be made too rich.

Culture. Having the bed well prepared, lay off the rows 20 to 24 inches apart. Set the plants a foot apart in the rows, carefully drawing out all the roots and placing them as they were before taking up. The ground should be kept perfectly clean from all weeds and runners. Give a good dressing of manure in autumn to prevent injury to the plants from the effects of frost, and spade it in, in the spring. Then cover the ground with a little clean straw, leaves or spent tan, to keep the fruit from the earth.

It is customary now, to divide all strawberries into two classes, staminate and pistillate.

The staminate are the male, and the pistillate the female plants. Some varieties have both organs in perfection, and these bear perfect fruit and abundant crops; while those varieties which have but one set of organs developed, produce but few berries and those imperfect. The staminate are used as fertilizers of the pistillate, and the latter bear the fruit. Nearly, if not all the staminate, or male plants, however, have a greater or less number of pistils, but usually not enough to make them productive. Large Early Scarlet, the Alpine and Wood Strawberries have perfect flowers, and therefore produce good crops

when planted alone; but the *pistillates* have only imperfect *stamens*, and consequently do not produce good fruit when planted alone.

To raise good crops, therefore, it is necessary to have a small portion of the plants staminate to furnish the pollen, which fertilizes the germ, and which is carried from one to the other by bees and other insects in search of honey.

We give two figures, which we have taken the liberty to copy from the "Fruit Culturist," to illustrate and show the difference between the male and female plants. They are readily distinguished when in blossom; *a* being the stamens with the anthers at the extremities, which contain the pollen or fertilizing dust, and *b*, the pistils:



FIG. 1.



FIG. 2.

It may be seen that at figure 1, the stamens are imperfect—they are very small, and not developed as at figure 2. The pistils are perfect in both; fig. 1 shows a part of the flower of Hoyey's Seedling, and fig. 2, that of the Large Early Scarlet. The former is a pistillate, and requires to be impregnated by a staminate sort to bear fruit. The latter is a perfect flower, having the organs fully developed. It will thus be seen that it is important for cultivators to know something of this matter; and in purchasing or procuring plants, it is always best to get them from those upon whose care and honesty we can rely, as the unpracticed cannot distinguish them apart when not in bloom. Many a one has been disappointed and discouraged, from having unluckily obtained plants all of one sort—either pistillates or staminate.

The periods for transplanting are the month of August in Autumn, and the last of March, or the first part of April, in Spring. On clay soil, where the ground is liable to be heaved by frost, it is better to plant in Spring; but on sandy land, or where the plants have to be brought from the east by water, it is better to plant in Autumn, as they cannot be obtained in Spring sufficiently early. If planted with care, and receive proper attention, all the weeds and runners kept away, they will bring a good crop the first season after being set out.

The proportion of the staminate to the pistil-

lates should be one-sixth to one-tenth of the former, and should be so arranged that they will not become intermingled by the runners.

In backward seasons, more staminates are necessary than when the spring opens mild, and continues uniformly pleasant; and the reason is, that too few insects are out when cold weather prevails, to carry the fertilizing dust to the barren flowers.

This has been the case the present season. A cultivator, near Cincinnati, states that, "in a good bearing season, I have brought as many as thirty stands to market in a single day. Each of these contained seven baskets. Five stands is the greatest number I have brought to market this season, though I have planted twice as much ground in strawberries."

It is best to have staminates enough, and then although the weather should be such as to prevent the ever busy insects from making but brief visits each day, they will be more likely to pass frequently from one to the other.

New beds must be made as often as every third year. This may be done by planting, or by permitting the runners, after the crop is taken off, to take root and occupy the spaces between the rows, and then spading in the old plants with a good coat of manure.

VARIETIES FOR CULTURE.—*Large Early Scarlet*, is one of the highest flavored strawberries grown; it bears perfect fruit when planted alone; it is also a good fertilizer or staminate.

Cincinnati Hudson. This is cultivated extensively at Cincinnati, and is very productive. It should be allowed to become thoroughly ripened before gathering. It is pistillate.

Burr's New Pine. An inch to an inch and a fourth in diameter. Exceedingly productive and with perfect berries. Leaves large, spreading.—

Thomas.

Hovey's Seedling. This has acquired quite a notoriety. Cultivators differ in their estimates of the quality and value of this variety. It is very large, showy, an inch or more in diameter; requires a plenty of room and good culture. A pistillate, and consequently will require the presence of staminates to insure fruit.

Prolific Hautbois. Musky. Berries grow high, above the leaves.

We cannot continue our remarks further at present.—C. B.

~~As~~ Americans are said to estimate everything in dollars and cents. Pomology, therefore, is the popular feature of horticulture in the United States. It creates food, preserves health, saves medicine and money, and to the moralist, I might add, tends to make mankind wiser, better, happier, and more desirous of sharing the blessings which they have proved, with the many who might enjoy, without diminishing them. Horticulture is a humanizing and a christian profession—pomology makes it a paying one.—*Western Horticultural Review*.

FALL AND WINTER APPLES.

We give a list of a few standard varieties of the apple. We know that this embraces but a small part of the numerous kinds grown, and pronounced good by eminent cultivators of fine fruit; yet these always prove excellent in nearly all localities, will command the highest prices in market, are always in demand, and subserve, in the highest degree, all the domestic purposes to which it is necessary to apply this fruit. The trees are hardy, and grow and produce well under common treatment, except the Northern Spy and Newtown Pippin. These need rich cultivation to produce fine fruit; and the other kinds, will amply pay for manuring and constant care and attention.

Fall Pippin. This is well known in some parts of this State. Mr. Thomas considers this a first class fruit of its season. It is very large, slightly conical, a little flattened at the ends, greenish about the crown and stem; the crown is usually ribbed; color, when fully ripe, is deep yellow; flesh, yellowish white, tender, juicy, aromatic; excellent for cooking and drying. Season; Middle of Nov. to Feb.

Rambo. We had an opportunity, the past year, of giving this apple a full and fair trial, under common cultivation. We pronounce it fully equal in quality to the Fall Pippin—one of the very best Fall apples for the West. It ripens the latter part of October, and kept well, the past season, till March. The tree is a free, strong grower, and a most prolific bearer. The fruit is rather above medium size, and always fair and smooth. All who tried it pronounced it first rate. The following description is nearly correct:—Ground, pale yellow, covered with large whitish dots, and a dull, reddish, brown blush, with rich red streaks next the sun; basin, shallow and smooth; stem, 3-4 to an inch long, inserted in a moderately deep cavity; flesh, yellowish white, juicy, tender, inclined to be granular when fully ripe, of a rich sub-acid, sprightly flavor.

No collection in the West is complete without this variety. We would be happy to supply, gratuitously, a few scions of the Rambo to any one who may apply, post paid, next winter.

Rhode Island Greening. Mr. Thomas places this among the winter apples, but with me it is an excellent fall apple as well as winter. It has an uncommonly long season, and retains its juicy richness and its fine peculiar flavor most remarkably. It is too well known to need a description. It should be among the first and most extensively cultivated.

Eosopus Spitzenburg. Also first rate; color, a rich red when ripe; conical, round ovate; flesh, yellow and firm, spicy; one of the richest apples grown in this country; and if the heart ever overflowed with pure delight, it was when stand-

ing embosomed in its long branches, gazing upon the clear, crimson fruit, hanging so modestly from the pendant branches all around me. Season, Nov. to middle of April.

Roxbury Russet. Late keeper; fruit large, covered with a dark russet on a scarcely perceptible, greenish yellow ground; flesh, yellowish white, tender; flavor, mild sub-acid, not so spightly as the R. I. Greening or Spitzenburg. The tree is of spreading growth, and the shoots are somewhat downy; is very productive, and this, with the good keeping quality of the fruit, render it worthy of extensive cultivation. It does well in this State, and the West generally so far as tried.

Baldwin. This fruit, I think, will not be grown extensively here. With me it has proved almost valueless. Besides being deficient in flavor and juiciness, it is strongly disposed to the dry rot—the whole surface frequently becoming covered with specks of rot half the size of a pea.

It is possible that by applying some special manures, thereby altering the character of the soil, or of the ingredients which are appropriated to the formation of fruit, the difficulty here experienced may be avoided. Some kinds of the apple require a strong lime-stone soil to produce fine fruit; so the Baldwin, perhaps, if grown upon a soil like that of its native place would produce fine crops of fruit in the West.

Newtown Pippin and Northern Spy have been extolled very highly of late; but having had no experience with them, we give a description of them from Mr. Thomas.

Newtown Pippin. Medium, or rather large, roundish, oblique, slightly irregular, remotely conical or else a little flattened; dull green, becoming yellowish green, often with a dull brownish blush; stalk short, deep set, and surrounded by thin, dull, whitish rays; basin narrow and shallow; flesh, greenish white, juicy, crisp, fine grained, with a high, fine flavor. Keeps through Spring, and retains remarkably its freshness.—Tree of remarkably slow growth, with a rough bark. The fruit is very liable to black spots or scabs, unless under rich, high, and constant cultivation, with a good supply of lime in the soil. One of the best fruits for foreign markets. It is a native of Newtown, Long Island.

Northern Spy. Large, roundish, slightly conical, often flattened, sometimes slightly ribbed, handsomely striped with red; stalk and calyx deeply set; flavor, mild, agreeable, mild sub-acid, fine; keeps through winter and late into spring; preserves its flavor remarkably fresh. Shoots, dark, spotted, erect and stout. To afford fine fruit the tree must be kept thrifty by good cultivation. A native of East Bloomfield, N. Y.

There are some others which have proved fine in Ohio, and probably will here: the Red Canada, Rawle's Jannette, or Never-fail, and Belmont. This last is an excellent fruit in this latitude, but said to be worthless at Cincinnati;

so much depends on soil and climate. Hence we see that we cannot depend upon the experience of our Cincinnati neighbors, to guide us in the selection of varieties suited to our climate and soil, no more than upon eastern cultivators, and hence the urgent necessity of relying upon our own practical experience and observation to determine the matter. Our aim should be to ascertain what kinds are adapted to our locality, and to this end we want the experience of cultivators in different parts of the State. We hope the lovers of good fruit will engage in this matter with earnestness, so that we may have a list made out which will enable those desiring to purchase, to make a selection with safety and profit.

Burr Oak Pie Apple. This is a supposed seedling, found upon a farm which I purchased 3 years ago in Burr Oak, St. Joseph Co. The name my family gave it to distinguish it from others, and express its peculiar qualities. It is nearly oblate conical; color, greenish white, with bright red cheek next the sun; large, basin quite deep and furrowed; cavity narrow and deep; stem 1 1/2 an inch long, but sometimes so short that the end of the shoot is entirely within the cavity; flesh, white, tender, juicy, sharply acid; requires but a few minutes to cook; excellent for pies and sauce. Growth thick and partially upright, the branches stout at the extremities, but the wood is very tender and liable to break when heavily laden with fruit.—C. B.

A LARGE ORCHARD.

In our last number we called the attention of our farmers to the profit to be derived from the cultivation of fruit. In the July number of the Western Horticultural Review, we meet with the following account of probably the largest orchard in the world. It belongs to a Mr. Isaac Underhill, and is situated at the head of Peoria Lake, Illinois:

"Having been persuaded that an orchard well cultivated, would be profitable, I appropriated one field of *five hundred* acres for that purpose, and in the Spring of 1848, I commenced planting the trees. I have set out in rows about 30 feet apart, *twelve thousand* of the best varieties of grafted fruit, principally winter apples; about ten thousand of them alive and growing finely. I lost about one thousand trees by putting too much unfermented manure in the spaces dug for the trees; also about one thousand more by letting the roots of the trees get frozen after they were taken from the nursery. I have set also in orchards about *seven thousand* peach trees, which are doing finely. The principal enemies I have had to contend with in rearing apple trees were rabbits and caterpillars. The former I soon disposed of by paying 25 cents each for their scalps: after paying out about \$75 there were hardly

enough left for breed. I do not sow any of the small grains in the orchard. The trees do best where the ground is cultivated in corn. Great benefits have accrued to the trees where they have been well mulched with straw or coarse manure on the surface."

Now this, certainly, is a great undertaking, but at the same time we have no doubt that, situated as Mr. Underhill is, on a farm of 2000 acres, it is a wise one. The only difficulty of importance which he will experience, is keeping cattle out of this one field for a few years, otherwise his land is just as profitable as if no trees were there; and when they come into full bearing in ten or fifteen years, he can scarcely fail to enjoy an annual income of at least \$10,000 a year, and often perhaps much more. We have yet to learn where the Rail, or plank road exists which will, *with certainty*, give such a return for an investment of, say at the utmost, \$2000; not to mention the less secure and more imaginary speculations which invite so many to a gilded ruin.— Few, if any of our farmers, it is true, in this State are capable of appropriating so much land to such a purpose; few, perhaps, even wish to be so independently rich; but there is not, in the counties bordering on the Lakes, a farmer of 30 years of age, who, beginning now, might not thus, at little trouble, secure a handsome income for his old age, or a start in life for his children.

Fruit never can become too common; and all above actual expenses is clear profit. To all such, therefore, we say, *Plant Fruit Trees*—the best varieties you can procure, take a little care of them, and not only will you be a richer, but a happier and more contented man. Let not a few accidents at first, discourage you. Nothing good is attained without labor. Have faith; look to the future, and do not live merely in the things of the present. An orchard is a great moral instructor, and many a lesson of wisdom is to be learnt from trees. In the dying words of the old Laird of Dumbiedikes: "When ye hae naething else to do, be ayne sticking in a tree, it will be grawing when ye're sleeping."—C. F.

For the Michigan Farmer.
"QUERY" ANSWERED.

Farmington, Oakland Co.,

10th of the 7th month, 1851.

Friend C. B.:—Say to "Query" that the way to prevent the future ravages of moles in his orchard, will be to tread closely down the first snows of winter around the bodies of his trees, and occasionally through the winter, when there comes a deep fall of snow. This, with what it will occasionally thaw, and the falls of sleet, will make an impervious layer, and prevent their future depredations.

And to restore the gnawed trees, if not too far gone, and bark left on the lower part of the body, cut away smoothly the injured part, leaving a square shoulder at each end. Take some pieces

of a growing tree and make them to fit exactly the space thus cut out. The sap will flow thro' these, and the wound will soon heal over.

When done, draw the fresh earth around and above the injured part, pressing it close to the tree. This is but another mode of inoculating, invented through necessity.

To prop Apple Trees.— Plant three sprouts equi-distant from the main stock, or place them around as legs on a kettle. Let them get well to growing, then clip off the top of the sprouts, and make an incision into the bark of the tree. Place the top of the sprout so that it will set snug in the bark; wind woolen yarn round and wax it over; it will soon grow fast, and these will be a source of great strength to the tree, will afford an increase of sap that will enlarge the fruit, and become living props that will add both beauty and stability to an orchard*.

I have some rare varieties of apples in my orchard, and any one wishing scions in the spring may be furnished gratis.

NATHAN POWER.

* Did friend Power ever plow an orchard thus decorated and braced?

C. B.

CULTURE OF THE CRANBERRY.

MR. EDITOR:—A few weeks since a brief notice was given of the upland culture of the cranberry, by the Messrs. Needham of Danvers. As the "proof of the pudding is said to be in the eating," so may it be with the cranberry. I have lately received a box of the fruit, grown upon their lands the past season, longer and fairer than cranberries usually are. They appeared more like ripe cherries than cranberries. They cooked tender, required a moderate proportion of sweetening, and in every respect were superior to the meadow cranberry.

Whether it will be practicable to extend this culture so as to pay, I am not sufficiently advised to express an opinion. It is certainly true that the cranberry can be grown upon the upland, and that the quality of the fruit is greatly improved by so growing. When the habits of the plant are fully understood, and proper care shall be taken to guard it against the frosts of winter, I see no reason why it should not be as successfully cultivated as the strawberry. About one bushel to the square rod of land might thus be raised—and there will ever be a quick market for all that are raised.

The cranberry is ordinarily found on ground overflowed by water in the winter. This overflowing, in a measure, protects it from frosts. Hence the inference has been, that such overflowing was necessary to their growth. The experiments that we have seen would seem to prove, that a slight covering of meadow hay, or bushes of evergreen, or other light substances not burthensome to the plants, would be an equally good protection.

Esteeming the cranberry one of the greatest

luxuries for the table, indigenous to our own soil, healthy as well as palatable, I have thought a circulation of the above facts, relating to its culture, might awaken attention to the subject. Heretofore, usually plants have been transferred from the meadow to the upland; but if they could be raised from seed, or taken from nurseries, as are the plants of the strawberry, it is apparent that they would be best adapted to their position.— Strict care in this as in other cultures, should be had to exclude all weeds and meddlesome grasses. —P.

Danvers, June 20, 1851.

Remarks:—Cranberries grown on high land are hard and firm, and keep far better than those raised on wet land, and yet they cook soft and are of the finest quality. We picked a quart of cranberries of spontaneous growth on a poor gravelly ridge, and set them in a closet in a room that was kept warm through the winter, day and night. The next spring almost every one was sound, and had hardly shriveled. It is a curious fact that cranberries, of spontaneous growth on high land, endure the cold of winter, and produce well without any protection during the winter, whilst those cultivated on high land seem to need protection.—*Ed. N. E. Farmer.*

Grape Vines.—We are told by Mr. D. L. Wood, a gentleman of the "Advertiser" office, that *greasy water* is one of the best manures for grapes. Try it.

MICHIGAN SOUTHERN R. ROAD.

We have lately taken a trip over this road its whole extent. The kindness and attention to the wants of passengers of Messrs. Wells and Haskins, conductors, with whom we rode, was truly gratifying, and made us feel quite at home. The energy of the Owners and Superintendent, (Mr. E. P. Williams,) is commendatory in the highest degree. The Road will very soon be ready for the cars to White Pigeon, and will open to trade and travel, the finest part of the State. The contracts, amounting to \$30,000, for rebuilding the bridges, leveling, and re-laying the entire route from Monroe to Adrian with T rail, are let, and Messrs. Clark and Mann are engaged, with all the help they can get, in doing the work. The bridges are to be made of solid masonry, and all the work will be done in the most thorough manner. We think the new part of the road, west of Hillsdale, cannot be surpassed in the West. We noticed some fine buildings at Adrian, for the use of the Road, in process of completion. Mr. Williams merits, truly, the high regards of the people of Southern Michigan, for his vigilance and taste. Eight new engines, and 145 new cars are being placed upon the road, and a line of first class boats is established, one of which leaves Monroe daily on the arrival of the cars from the west, for Dunkirk and Buffalo. —C. BETTS.

For the Michigan Farmer.

PROFITS OF SHEEP.

Howell, June 24th 1851.

Mr. Isham: I have 250 sheep which I have made quite profitable the past year.

Their pasture through the summer cost me mere nothing as they run upon the summer fallow, and could not have been sold for any thing of consequence.

I think they benefited the farm as much as the keeping was worth. Their winter keeping consisted of straw and running at large upon a fall growth of grass, having considerable of a range (without grain to speak of), which I could have sold for but little. The wool sold in Detroit for 40 cts. cash. The account would stand about thus—

Interest upon 250 sheep at 8s.	\$17,50
Summer keep equal to benefit of land,	
Salt, care &c. in summer,	5,00
Winter keep, say (did not cost it)	50,00
Foddering, care &c. in winter,	15,00
Washing and shearing,	12,00
	\$99,50
By 822½ lbs. wool at 40 cts.	329,00
By 78 lambs at 8s.	78,00
By manure in winter,	10,00
	\$417,00
Deduct	99,50
Nett profit,	317,50

W. A. BUCKLAND.

Here are the facts for those who think there is no profit in keeping sheep. It is dangerous publishing such articles at this time, however, when so many are prostrate with the "sheep fever."

C. B.

INQUIRIES.

For the Michigan Farmer.

MR. ISHAM:—I have been for a long time a reader of your valuable columns, and through them wish to make an inquiry in relation to the culture and curing of tobacco. I have a small patch of plants set out in my garden, and if some of your readers could give me some information in relation to the culture and cure, it would be thankfully received by your friend.

R. L. B.

Ypsilanti, July 1, 1851.

Mr. Editor: Has any one tried Emery's Drill for planting corn? If so, please be explicit in stating the manner of working, &c. &c.

Will corn, fed to sheep, injure the staple?—How much is sufficient, per day, for 100 sheep?

A. F. CORNING.

For the Michigan Farmer.

PREPARING GROUND FOR WHEAT.

FRIEND ISHAM.—In a former communication I promised to give your readers some of my experience in agriculture. And here permit me to say, that it is no part of my object to write merely for the sake of appearing before the readers of your valuable paper as an author, or for the sake of being read, but for the purpose of helping my brother farmers along in their investigations and labors, to advance the great cause in which we are engaged. I have been in the habit of trying various experiments on different crops ever since I have been engaged in farming, which is about twenty-five years; and in this way I have been able to satisfy myself on various subjects, which have been useful to me. I have not been satisfied with trying any one once or twice, but have followed them up for a series of years, that I might be more convinced of their utility. I have generally tried them on a small scale, thinking it more safe than to go into more extended operations.

I have tried both deep and shallow plowing for those crops usually raised on the farm, and firmly believe that deep plowing is the only way to ensure a good crop. In breaking up timothy and clover sod, I prefer to have the plow run not less than ten inches deep, and this can be done with a good heavy pair of horses, and I generally plow from one and a half to two acres per day, and if the plow meets with any obstruction so as to throw it out of the ground, or partially so, which is frequently the case, especially if the ground is dry, I always back my team and plow, and turn the sod all over, believing that if a thing is done at all, it should be well done. In this way I not only get more grain to the acre, but it is more even than if the land is but partially plowed, or as some farmers do, cut and cover and run over their fields and have them looking as uneven as if the timber had been turned up by the roots.

In the March No. of the Farmer, friend Dougherty says, "If any one of your contributors will inform us how he tills timothy sod to make 20 bushels to the acre, I will tell him how I make 25 to 30 on clover, if the land is good." Now I will not only tell him how I make 20 bushels of wheat to the acre on timothy sod, but how I have made 27½ bushels to the acre, on the average for six years in succession. I have never harvested less than 20 bushels to the acre, and have had 33 bushels to the acre, and that on an average in the whole field.

I break up the turf as above described, about the middle of June; turn on my sheep, and in that way keep my fallow free from grass and weeds. I give it a thorough harrowing before I commence cross-plowing for seeding, which is about the 1st of September. After I have finished plowing I take my team and harrow and go

crosswise the furrows, and level them down. My time for sowing is from the 10th to the 20th of the month. I usually sow from one bushel to one and a peck to the acre. I have put on at the rate of one and a half to two bushels to the acre, but think I get as much from one and four quarts as a general thing, as when I have sown more to the acre. After the seed is sowed the ground harrowed over twice crosswise, lapping one or two teeth to prevent making balks. I have never failed in raising a good crop of wheat on a timothy sod, and believe if those farmers who are troubled with grass, would plow their land deep, and cut it all up, and put in their seed in first rate condition, and with the blessing of Him who giveth us all things richly to enjoy, they would see quite a difference in their crops.

I select my seed wheat from the ripest and best of my crop, and in this way my wheat has showed no signs of running out, as I have raised the same kind for the last ten years, and my last crop yielded as much to the acre as the first, and without changing the seed. I have raised but little chess or cockle, as my seed is generally well cleansed, consequently the Millers are perfectly satisfied with it when it is taken to market, as it has a good berry and will recommend itself, and is much more profitable. And how much better one feels than to have the Miller untie the bags and grumble because it is so foul and shrunk, and get docked three or four pounds on the bushel.

My motto has ever been, keep the land clean and sow no foul seed. One year ago, last fall, in seeding, I took a barrel of slack lime and sowed it on my fallow, so that the ground was quite white; then sowed my seed and harrowed it in. I likewise sowed a few barrels of ashes in the same way, and when I harvested it, there was quite a difference in the crop, and the berry was larger than the other where there was no lime or ashes sowed. I never sell my ashes as some farmers do, but put them on my land and always get well paid for my trouble, especially in my corn crop. Care should be taken and not get them on too thick.

☞ The above furnishes gratifying evidence of the soundness of doctrines which have been repeatedly taught in the Farmer.—W. I.

Carbon, Oxygen, Hydrogen and Nitrogen, are the constituents of the organic parts of plants.

Potash, soda, lime, magnesia, oxyd of iron, oxyd of manganese, silica, chlorine, sulphuric acid and phosphoric acid, are usually found in greater or less quantity, in the ash of all plants, and what are called the inorganic constituents.

The *organic* is by far the largest, being about 90 to 97 lbs. in every hundred. This part is formed of gases or different kinds of air. How strange, that by certain combinations, this air forms the far greater part of our forests, and enters largely into the composition of the crust of our globe.

There are few more pleasing subjects of investigation than this, or more profitable for the farmer to study and analyze.—C. B.

STATE FAIR.

Arrangements for the State Agricultural Society's Third Annual Fair, to be held at Detroit, on Wednesday, Thursday and Friday, Sept. 24th, 25th, and 26th, 1851.

The Committee appointed to confer with the Directors and Superintendents of the several Railroads leading from Detroit, with regard to the transportation of Stock and Articles for exhibition, also for the transportation of visitors to and from the Fair, have entered into the following arrangements:

Michigan Central R. R. Office, }
Detroit, July 20th, 1851. }

J. C. Holmes, Esq.:

Dear Sir:—The letter of your committee to the Superintendent and Directors of our Company, in the matter of the transportation of persons and property over our Road, to and from the State Fair, next Autumn, has been referred to me for reply.

Persons to take care of animals for exhibition, will be taken with them to and from the Fair, free of charge.

A special train will be run, with suitable despatch, over our whole line to Detroit, before the Fair, to transport animals for exhibition. Animals and other property to be taken to the Fair for exhibition, and returned, will be carried both ways, at the owner's risk, free of charge.

Tickets will be issued to persons having property to exhibit at the Fair, which will allow them to come into Detroit two days before the Fair, and return two days after, or at any time between.

Visitors to the Fair will be taken at the reduced rates, in both directions, during the days of the Fair, and including the first train from Detroit on the morning after the last day of the Fair.

Visitors and exhibitors will be taken over the Road as above, at the same reduced rates as heretofore.

The regulations of the Company as to the time of running the trains, &c., will be published in due time.

Very respectfully,
Your obedient servant,
J. W. BROOKS, *Sup't.*

J. C. Holmes, Esq., Secretary,

Dear Sir:—I herewith have the pleasure of handing you a copy of a resolution adopted at the last meeting of the Board of Directors of the Michigan Southern Railroad Company, which you will please make known to the committee of the Agricultural Society.

I am, respectfully,
Your obedient servant,
CHARLES NOBLE.

At a meeting of the Directors of the Southern Railroad Company, holden at the Michigan Exchange, in the city of Detroit, April 3, 1851, the following resolution was adopted:

Resolved, That all beasts and other property designed for exhibition at the Fair of the State Agricultural Society at Detroit, the next autumn, be transported both ways over the Road, at the risk of the owner, with the necessary attendants for beasts, free of charge; and that passengers destined for such Fair, be carried for half the ordinary rates, each way, during the Fair, and for two days preceding, and two days succeeding the days of holding the same.

(Copy) CHARLES NOBLE,
Attest. Secretary.

Arrangements are now being made with the Boats running from Detroit and Monroe, to connect with the Southern Railroad, and transport Stock and Articles for exhibition, also passengers at the same rates as the Railroad.

The arrangements with the Detroit and Monroe, and the Detroit and Port Huron Boats are not yet completed, but they will probably transport property and passengers upon the same terms as the Railroads.

As the Pontiac Railroad is now undergoing repairs and extension, it is difficult for the Directors to say what they can do at the time of the Fair; but they will do all that the condition of the Road at that time will permit.

The Directors of the Detroit and Saline, and the Detroit and Howell Plank Roads, will pass stock and articles for the Fair over their Roads free of toll. Passengers will pay the usual toll.

The Directors of the other Plank Roads have the matter under consideration, and will report soon.

The ground selected for the Fair, is upon the Cass Farm, between the Chicago and Grand River roads.

J. C. HOLMES,
Sec'y Mich. State Agricultural Society.

These liberal arrangements will enable those residing at a distance, to bring animals, implements, &c., to the Fair, at as little expense as those living near.

It is expected that our farmers will turn out en masse, and bring with them whatever they have that is worth bringing, whether designed to be exhibited for premiums or not. It will be remembered that, heretofore, many farmers would not bring with them articles which they possessed because they thought they were not worthy, and on arriving at the Fair, found on exhibition inferior articles of the same kinds.

We doubt not that every one who will resolve to attend, will find himself well repaid. There will be a great advance on the two former exhibitions, in the Stock department, and we premise, also, an improvement in implements and works of Art.

We trust that our farmers will take an intelligent view of the sure tendency of these exhibitions, viz: That they are a powerful means of

ONE PRICE ONLY!

1851.] Spring and Summer. [1851.
CLOTHING AT WHOLESALE & RETAIL.

At the well known establishment of the subscribers, corner of Jefferson and Woodward avenues, may be found a very large assortment of Clothing, comprising every quality and description of garments, which for style, durability and economy, cannot be excelled. FARMERS and MECHANICS may here procure substantial and economical garments; and as no deviation in price is practiced, they can rely upon purchasing goods, in all cases, at the lowest possible rates. Under this system the inexperienced can buy as low as the most expert and practiced buyer. Also on hand

BOYS' AND CHILDREN'S CLOTHING, in great variety, India rubber and oiled clothing, TRUNKS and CARPET BAGS, under garments, cravats, stocks, &c. &c.

Cloths, cassimeres and vestings, always on hand, and made up to order in the best manner. HALLOCK & RAYMOND

March 9, 1851.

Attention Soldiers and old Volunteers!!!

EACH of the commissioned and non-commissioned officers, Musicians or Privates, whether Regulars, Volunteers, or Militia, or the widow or minor children of those deceased, who actually served nine months in the war of 1812 or in any Indian wars since 1790, and each of the commissioned officers of the Mexican war, are entitled to 40 acres of land; those who served four months are entitled to 90 acres. Those who served one month are entitled to 40 acres.

I will procure warrants for such as are entitled, by calling on me or writing to me. Business from a distance promptly attended to. Banking office next door to the Post Office, Woodward Avenue, Detroit, Michigan.

Letters must be post paid.
Mar 6th G. F. LEWIS, Exchange Broker.
N. B. Claims for Pensions, Extra Pay, &c., attended to.

Paper Warehouse.

THE undersigned has opened an extensive Paper Warehouse, on Jefferson Avenue, Detroit, for the exclusive sale of all kinds of paper, where a general assortment can be found at all times. The attention of country dealers is especially invited, before purchasing elsewhere. Cash paid for rags.

Detroit, Feb. 19, 1851.

J. B. CLARK

marly

KELLS' PREMIUM HORSE POWERS

And Threshing Machines.

THE New York State Agricultural Society, at their last Fair, awarded to the Horse Powers manufactured by the subscriber at the city of Hudson, the

First Premium.

They having been presented for competition by Messrs. Emery & Co. of Albany, who within nine months past have sold over 125 of these Powers.

The attention of Farmers throughout the country is therefore solicited to the Rail Way Horse Powers and Over Shot Threshing Machines with the Vibrating Separators as now manufactured by the subscriber,

Philip H. Kells,

Who is the first and original inventor of the present improved mode of constructing these Powers, and who has been constantly engaged in the manufacture and sale of Horse Powers, Threshing Machines, &c., for the last ten years. On this account, with his facilities for carrying on the business, and his knowledge of the wants of the Farmers of this country, he is satisfied he does and can execute this kind of work in a manner not to be excelled by any manufacturer in this country. For the details of my mode of constructing the Rail Way Horse Powers reference may be had to the advertisements and illustrations published by Messrs. Emery & Co. of Albany, in the Cultivator since June, 1850, at which time I commenced manufacturing for them.

All persons wishing to purchase Horse Powers or Threshing Machines of the latest and most approved construction are requested to call on, or forward their orders to the subscriber at his manufactory in State street, Hudson, or at Griffith's Long Wharf, Buffalo, N. Y.

Price of Machines.

For Two Horse Machines.....\$145 00
For One.....\$120 00

Machines will be shipped to any part of the United States or the Canadas, ~~if~~ and warranted to give satisfaction to the purchaser, or may be returned within sixty days.

DETROIT

PHILIP H. KELLS.

EAGLE & ELLIOTT,

DEALERS IN

CLOTHING.

Wholesale and for the Million!

KEEP constantly on hand as large a stock of Ready Made Clothing as may be found west of New York. Being of Philadelphia manufacture, and well suited for this market, they are prepared to sell at low prices, at wholesale or in quantities to suit purchasers. They beg leave to call attention to their

New Cloth Ware Room, second story.

French, Belgian, English, and American Cloth; cassimeres and tricraming, serges, satins and vestings, making the best assorted stock of these goods to be found west of Buffalo; for sale wholesale or made to order, at their

Custom Department,

where every satisfaction as to fit, style, &c., is warranted, and at reasonable prices.

EAGLE & ELLIOTT,

61 Woodward avenue, nearly opposite Presbyterian church, Detroit. Jan

MICHIGAN BOOKSTORE.

THE SUBSCRIBERS having rented the new and commodious store adjoining the Young Men's Hall, on Jefferson avenue, are now opening one of the largest stocks of

BOOKS & STATIONERY,

To be found west of New York. Their assortment includes LAW, MEDICAL, THEOLOGICAL, MISCELLANEOUS, CLASSICAL, and SCHOOL BOOKS. All of which are offered to the public, wholesale or retail, at prices much lower than heretofore. They also carry on the Book Binding business, and are prepared to manufacture to order, County and Town Record Books. Merchants' Ledgers, Journals, Day Books and other kinds of Blank Work generally, of the best materials and workmanship. Pamphlets, Magazines, &c., bound with neatness and dispatch. A share of public patronage is respectfully solicited.

Detroit, Jan 1, 1851.

C. MORSE & SON.

T. H. ARMSTRONG,

Manufacturer of and Dealer in

SUPERIOR HATS AND CAPS,

No. 58, Woodward Avenue,

Between the Presbyterian Church, and Jefferson Avenue,
Sign of Big Hat, Detroit.

ALSO, Dealer in Furs, Robes, Muffs, Umbrellas, Canes, Gloves, Scarf, Cravats, Suspenders, Buckskin Gloves, &c., very cheap for cash.

Would respectfully solicit the patronage of Farmers and others coming into the city, pledging himself to sell as cheap as any other establishment east of New York.

His stock of Hats and Caps are of his own manufacture and warranted the best.

Or ~~one~~ for ~~one~~ ~~one~~ of Hat or Cap promptly attended to.

CHARLES PIQUETTE,



MANUFACTURER OF

SUPERIOR DIAMOND POINTED

GOLD PENS.

DAMAGED PENS RE-POINTED.

Also, damaged Watches and Jewelry, repaired by a superior workman, and the work warranted.

Detroit, August 1, 1850

TERMS.--THE MICHIGAN FARMER is published monthly, at Detroit, Mich., for one dollar a year, in advance; after three months, \$1.25; after six months, \$1.50; after nine months, \$1.75. No subscription taken for less than one year, nor discontinued till all arrearages are paid.—To clubs, five copies for four dollars, twelve copies for nine dollars, and any greater number at the same rate.

Advertising, for one folio, or one hundred words, first insertion one dollar and fifty cents—twelve dollars per annum.

Office next door to Markham's Book Store, opposite Maj. Kearsley—entrance same as that of the Daily Advertiser.